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(*Continued from page 81.*)

The next paper was entitled

RECENT INVESTIGATIONS ON THE ETIOLOGY OF DIABETES.

BY S. P. KRAMER, M.D.,
OF CINCINNATI, OHIO.

The pathogenesis of diabetes mellitus has been a fertile field for speculation. Bouchard was able to count twenty-seven theories of the disease. Nearly all of these have been based upon the classic investigations of Claude-Bernard, on the formation and excretion of sugar in the body. Since the contributions of Bouchardat, the association of diseases in the pancreas with diabetes has been frequently noted; so that Senator assumes that pathological changes in the pancreas occur in about one-half of all cases of diabetes. Baumel maintains that disease of the pancreas is found in all cases; in the milder forms microscopical, in the more severe cases, gross, pathological changes are found. This frequency precludes the possibility of accidental association. According to the view of Klebs, lesions of the cœliac plexus are the cause of this association. Either the disease is primarily in the pancreas from whence it encroaches upon the plexus, or else primary changes in the plexus give rise to circulatory and consequent degenerative changes in the pancreas.

The pancreatic origin of diabetes has been the subject of recent and very important investigations. Minkowski and Mering found that complete excision of the pancreas in dogs produced diabetes without exception. This was not an evanescent melliturla, but a true diabetes accompanied by polyuria, polydipsia, and polyphagia, loss of weight and strength, notwithstanding the excess of food given. The excretion of sugar begins immediately after the operation, reaching its highest point—5 to 10 per cent.—in from 24 to 48 hours. Aceton, acetic acid and oxy-butyric acid, are also found in the urine. The amount of sugar in the blood is also increased up to .5 per cent. The glycogen in the liver and other organs disappears to within a trace of this substance. Partial extirpation, as long as the remaining portion is not smaller than one-tenth of the entire organ, does not produce the disease. Ligation of the pancreatic duct is also without result; so that the conclusion is made that the disease is produced by the absence of some principle given off from the pancreas to the blood supply. Similar experiments in the cat and hog were followed by like results. In birds total excision of the pancreas does not produce diabetes. A confirmative case in man has also been reported. A patient of Dr. W. T. Bull died of diabetes after the excision of the pancreas. Minkowski has also given us valuable therapeutic investigations on this point. Dogs, rendered diabetic by excision of the pancreas were fed with a pancreas and pancreatic extract, without result. On successfully transplanting pieces of pancreas in the abdominal wall of dogs in whom this organ had been previously removed, the occurrence of diabetes was prevented. The subsequent removal of these transplanted pieces was followed by the occurrence of the disease. He found further that upon feeding diabetic dogs glucose, the entire amount of sugar given was excreted. When, however, lævulose was given, this did not occur, but the sugar given was used up by the organism. Minkowski's experiments have been confirmed by Hédon. Lepine and Barral have also confirmed the experiments of these authors, and from their investigations on the sugar in the blood of normal and diabetic animals, seek to advance the ideas of Minkowski and Mering a step further. They found that the blood of normal dogs when kept for one hour at a temperature of 39° C. showed a loss of from 20 to 40 per cent. of the sugar present. The greatest loss of sugar was found when the blood was kept at 39° C. This loss was found to be prevented by the previous heating to 54° C. In man a similar loss of 25 per cent. was found. Five experiments with the blood of diabetic patients showed a loss of 1.6 to 7 per cent. under like conditions. In diabetic dogs there was found a loss of about 6 per cent. The lymph of the ductus thoracicus, and the blood of the portal vein had a much greater sugar-destroying or glycolytic power than the venous blood in general.

From these experiments the authors have built up the following theory:

In the normal condition, the pancreas gives off to the blood supply a glycolytic ferment which causes a destruction of the sugar absorbed. When the pancreas is removed or diseased, this ferment is deficient and the normal destruction of sugar does not take place, but remains in the blood, and is excreted through the kidneys. They found the ferment to be chiefly contained in the white blood corpuscles. The power of the tissues to destroy sugar is ascribed to the glycolytic power of the blood.

Arthus, in repeating these experiments, found that the glycolytic power of the blood did not become manifest when coagulation was prevented by retaining the blood within the jugular vein of the horse, as in coagulation experiments. Moreover peritoneal and pleural transudates showed no glycolytic power. He concludes that glycolytic ferment is not to be found in the vessels, but is due to post-mortem changes which occur under similar conditions as attend the formation of the fibrin-ferment.

In a large series of experiments with ox blood at the chemical laboratory of the University of Cincin-

nati, the following was found: Both defibrinated blood and a mixture of three parts of blood and one part of a saturated solution of sodium sulphate, showed a glycolytic power. This, however, is not manifest during the first hour, is slight (10 per cent.) during the second hour, and becomes greater (20 per cent.) after four to five hours at 39° C. After twenty-four hours at 23° C. (decomposition being prevented by the addition of thymol), 75 per cent. of the sugar added to the blood had disappeared. It was found, moreover, that a temperature of 55° to 60° C. did not affect the glycolytic power of the blood. On the contrary it seemed to increase the amount of sugar discharged. Thus a loss of 14½ per cent. of the sugar added was found after an exposure to a temperature of 56° C. for one hour.

From the result of a series of experiments which will be published later, I am of the opinion that normally, a combination of the sugar and the albuminous principles in the blood takes place, in which form sugar is rendered suitable for the use of the organism. In the diabetic condition, this change does not take place.

The following may be added as a strictly true summary of the various investigations upon this subject: In the normal condition, the pancreas gives off a principle to the general blood supply by which the dextrose absorbed is so changed that its combustion by the organism is rendered possible. When the pancreas is removed, this change does not take place. The sugar is not utilized, but is excreted in the urine. The exact nature of the active principle and the change brought about by it remain a matter for further investigation.

Dr. Fell, of New York, reported a case of abscess of the liver which had come under his observation in Buffalo. In some manner the abscess was ruptured, the contents passing into the intestine. The man had diabetes before the rupture; but after the rupture the diabetes passed away. From this incident as well as from many other well known facts and the observation of other cases, he thought that we have more than the pancreas accountable for the production of diabetes and that the liver had very important power in this direction.

Dr. Cohen, of Pennsylvania, remarked that Lancereaux divides diabetics into the two clases, fat and lean diabetics, and confines the pancreatic form of the disease to the lean diabetics. In the fat diabetics, lesions of the pancreas have not been found. There is still another class of diabetics, namely, those which bear a close relation to the uric acid formation. It would be very unwise, therefore, to say that these theories absorbed the whole question of the etiology of diabetes. The important features of diabetes are rather the polydipsia and the polyuria, and not the mere presence of sugar. There is another form in which sugar is absent, but the polyuria and polydipsia follow a fatal course.

Dr. Kramer, in closing the discussion remarked that his theory was not a universal one, but was offered only in explanation of certain cases in which disease of the pancreas is found. These, however, are the typical cases of diabetes, attended with polyuria, polydipsia, emaciation and continuous presence of sugar. All these features are not found in the other classes of cases that have been referred to.

The next paper read was entitled

LA GRIPPE.

BY JOHN E. LINK, M.D.,
OF TERRE HAUTE, IND.

C. H. HUGHES, M.D., *Dear Friend*:—I have been much interested in your article, published in THE JOURNAL of February 27, 1892, on "Influenza as a Neurotic Disease."[1]

Since my first experience with the disease in the winter of 1889-90, I have regarded it as one of depression of the nerve centers, anæmia of the ultimate brain cells, as I conceive it. That the disease dates from the onset of fever and chill, or influenza, I am and ever have been seriously at a doubt. Patients marked out for such phenomena are for weeks prior to such attacks the subjects of langour and paleness of countenance. Many of the cases in this locality have almost entirely escaped fever and rigor, a few having little or no cough, all more or less suffering from neuralgia about the head or face, mostly, as they express it, a pain in the back of the head. In the majority of cases that I treated prior to December, 1891, I was enabled by the use of quinine in doses of three grains every three hours during the day, the dose to be doubled at bed-time, to keep my patients up and about at their usual avocation. The treatment had to be continued for at least two weeks; but I found that they invariably relapsed in about one month, showing again the malaise with paleness.

In May, 1891, I commenced the use of strychnia in connection with the quinine in gradually increasing doses,[2] with some benefit, as I was fully convinced; but the difficulty of keeping patients up and about on continuous dosings was considerable, and in most cases they would neglect, until the paroxysm of la grippe sooner or later overtook them. Up to the time above indicated and on until the following winter, I saw no cases of serious lung involvement, as the season was mild.

I, first, in my own sickness, recognized the severe paroxysm of coughing as neurotic and bronchial. I had enjoyed most excellent health and had come to regard myself as exempt from the affects of the malady, until in December, without recognizing the cause, I found myself gradually becoming lazy with increasing desire and impulse to seek the recumbent position. I yawned frequently, a habit that I in others abominate, and tried unsuccessfully to overcome. These feelings increased towards evening and were overcome or dispelled by a glass or two of beer or light wine. I slept unusually well for me and was slow to rise in the morning. This state of affairs had lasted for a fortnight or more, when I was subjected to an unusual strain of physical exertion and exposure by being called to a small railroad station, which I reached at one o'clock at night and then took a buggy and drove through snow and sleet over heavy country roads a distance of several miles to see a poor wretch who had been stabbed in the abdomen. He lived in a miserable old log house but half chinked and daubed, no place to take rest, although I was completely exhausted and worn out. I was driven back to the station, took a freight train for home, arriving at about seven o'clock in the morning. I found business pressing so that I got little or no sleep, until one o'clock that night, when I retired. I dropped into a light sleep, but awakened in half-an-hour with a chill and an incessant desire to cough. The irritation in the larynx was so intense that it seemed nothing would give relief but the expulsion of the mucous membrane. It was more like the irritation or itching of eczema, from which I sometimes suffer, than anything else to which I can compare it. The chill continued for at least four hours. Hands and feet,

[1] We must necessarily expect from such conditions innumerable phenomena of neurosis—furnishing a fertile harvest of physiological data for scientific investigation, clinical observation, study, reflection, in which the bacteriological fiend with his microscopic menagerie of diminutive curiosities is not in it.

[2] Thirty sul-strych. parvules, 1-50 gr. three times a day, to be refilled with 1-40, 1-35, 1-30, 1-20, up to 1-16.

in fact the whole extremity was cold, chilly sensations over the body, with the most excruciating pain in the chest, a feeling as though the flesh were being pinched and torn with blacksmith's tongs. The chill was followed by very slight fever. The severe pains disappeared with the cessation of the chill, after which the cough was slight, with small mucous expectoration streaked or colored with blood—a pinkish or strawberry juice—at no time prune-juice-expectoration. The case was at once pronounced pneumonia by several persons who saw it. To a physician I declared my non-belief in the pneumonia diagnosis. I regarded the whole phenomenon a neurosis of the pneumogastric center, both the cough and vomiting that accompanied it and continued after it subsided; the discoloration of sputa a result of extravasation from high arteriole tension from straining in excessive paroxysm in coughing, as one frequently sees in whooping cough.

In my case no treatment was administered, as I was alone in my room and became unconscious after the chill left me at five o'clock in the morning. I lay upon a narrow bed and remembered but indistinctly of vomiting, first on one side of the bed and then on the other, as I happened to lie. I was too much prostrated to give an outcry and had to keep closely wrapped in an effort to keep warm.

The next day my friends found me, at about 10 A.M., in a sad plight. I lay upon my back, the ejecta from my stomach, which was simply mucus or serum, had run down on either cheek and dried, after soaking the pillow.

My treatment for the first day was hot milk, as hot as I could take it into the stomach, with large quantities of black pepper, which gave me comfort and great satisfaction. And here I will now state that I have every reason to believe that hot milk is our best stimulant in the depression from this malaise. Towards night I indulged in free and frequent doses of a strong decoction of composition powders.

At night there was a return of the bronchial irritation with paroxysmal cough, which was entirely dispelled after taking four five grain quinine capsules, at intervals of fifteen minutes. After the third, fifteen grains, I felt much relief, and after the fourth, a glow of warmth seemed to pass over my body and lower extremities, and I slept soundly, feeling quite well and a convalescent the next morning.

I remained in bed for several days most of the time. When urgent necessity demanded I would take ten grains of quinine and visit a patient. In five or six days after the paroxysm, I went to Grant Station, a distance of nine miles on the I. & St. L. R. R., and visited a patient, with no seeming bad results; though I took fifteen grains of quinine at one dose before starting, I felt none of the usual bad effects of an overdose of the drug. As soon as I returned I again went to bed. I felt then (and clinical observation has since convinced me) that the recumbent position was all that was necessary or required to rest the circulatory centers and with this, conceived there was little else to be done so far as the neurosis was concerned.

I have since sought diligently and have found no cases of true pneumonia, and I doubt extremely if such condition, can possibly obtain under the physiological conditions of la grippe—the grip phenomena. It seems to me that the physiological conditions of the vasculatory system forbid it as even a possibiliyt.

I have seen no cases of cellulitis; wounds heal slowly or refuse entirely to heal under the profound malaise.

The lung symptoms are a false pneumonia. The bronchial irritation a neurotic condition with serum poured out into the bronchioles from a relaxed condition of the vessels, as we see it in local sweating in typhoid fever, etc. So again we may have a pouring out of serous fluid into the plural cavity. This fermenting breaks down and a rotten serum is discharged on tapping, as has occurred in this locality with la grippe cases.

I would offer this suggestion, based upon my own personal experience and clinical observation; that the disease has its seat primarily in the nerve centers, principally within the medulla oblongata, the pneumogastric being the first or principal nerve involved with that of the cervical sympathetic.

This ground I took immediately after my own sickness, based upon the peculiar suffering and phenomena of neurotic or spasmodic cough and vomiting. I believed that that alone could account for the peculiar manifestation of irritation, pain and spasm, with its immediate subsidence under large doses of quinine, which I have successfully used ever since, with the substitution after twenty-four to forty-eight hours, of salicylic acid, fifteen grain doses rubbed up with acacia to a heavy emulsion, with pepsin as a stomach adjuvant and bismuth to combat the bowel complications, which I can only understand as another result of the same nervous depression. First a failure of nerve energy to do the stomach digestion, with possibly a special depression of the vaso-motor system, manifested in the pale skin with disturbed heart action, and other phenomena which I have observed, namely disturbed menstrual function. A more frequent tendency to abortion, with a decided falling off in the birth-rate as shown in the statistics of France, for 1891. All of which I think we can physiologically attribute to a fault in the sympathetic centers, having origin in the medulla and expression through the cardiac plexus and vaso-motor distribution.

There have been a few cases of cerebro-spinal meningitis reported by the local physicians here, but I have not seen them and cannot speak advisedly; but should rather look for and expect effusion as the cause of such phenomena, the result rather of a relaxed condition of the vascular tissue than from inflammatory products, or it may be as Dr. Mitchell, formerly of this city claims, that all such are neurotic and of rheumatic character. Paper published about 1870, and extensively noticed in the medical journals.

But my principal object in writing is to call attention to what I believe to be a glaring mistake on the part of the profession at large, in regard to the etiology of the disease as manifested in the lung, and that in such mistakes fatal results must necessarily result to a greater or less extent.

My course of treatment has been as above indicated, excepting within the last six months—the enjoining upon the patient of absolute rest in the recumbent position during the acute stage—if I may so designate it—for I believe, as you seem to imply in your article, that there are no sequelæ of the disease, no pneumonia, so-called, "following grip"; but the disease has not run its course, in the majority of cases, if in any, but so far as we might judge, only held in check or abatement in its violence, to be again mani-

fested in some weaker spot under some new depressing influence.

Whether the discrasy is toxic, or an enfeebled condition from a lack of the elements necessary for the maintenance of the higher order of organic life, I do not here pretend to say. That there may be a condition of our planet, brought about by the peculiar relations with others of the solar sytem,[2] and in extended thought of imagination, the solar system with other systems, that have so changed our elements that they are poisonous—or impoverished, I do not say; but in consideration of the unusualness, as well as the universality of this discrasy, I do say that the matter is worthy of thought, and I here present it, not so much in the hope that it may possibly be in the power of man and his means of investigation to determine the facts within this possibility, as the other thing of emphasizing my views as to the trouble having its seat within the laboratory of the cells, either of the inhibitory, or force phenomena—or both.

I have had no cases of death excepting in one or two cases of very feeble old persons, where death was more the result of senile, than of grippe influence; but in a large proportion of the cases that I have had the history of, excepting in the acute lung involvement, death has occurred while the patient was in the erect position, most were sitting up, but quite a number were standing, and a few were walking around, when they suddenly, and without a struggle, died. In these the report of "cause of death" read "heart failure," notably Wm. Astor.

I believe that all patients will convalesce more rapidly with rest in the recumbent position, with hot milk as a stimulant and diet, than with medicine, the patient being allowed to move about.

Something of the nature of a disease can often be learned by noticing the effects of certain therapeutic agents.

There is in many of these cases a tendency to looseness of the bowels at all seasons (though neither copious nor frequent, there is a fluid condition of ferment) amounting to serious diarrhœa and dysentery during the summer and fall months.

I have been in the habit of giving sweeping cathartics—preferably castor oil, with a view to the hygienic effects, and in all cases the offensive smell of feces and quantities of gas have confirmed my belief that there was a ferment, which I can only attribute to the suppressed normal secretion and digestive process generally, but probably, I think, more especially of the stomach.

I can, too, understand why quinine and salicylic acid, especially the latter, should manifest good results in the anti-ferment rôle, in addition to its nerve influence and prophylaxis against neurotic complications. And here it seems to me is food for thought in regard to the part taken in physiological derangement through central nerve influences, as compared with the germ theory of disease now the fad of a large—too large—proportion of our investigators, and voiced by the masses.

I have had in my experience of the last eighteen months three or four cases that I think are worthy of note and consideration.

I have been in the habit for years of giving strychnia in gradually increasing doses in certain forms of nerve trouble; where the drug is indicated, I give a solution of one-half grain of strychnia to the ounce of water. Say commence with about twenty drops three times a day, to be increased one drop each day until the physiological effects are manifested in the muscles of the back of the neck, then drop back to one-half and on up as before.

Three patients that I now have in mind have persevered in this course of treatment for over one year with gradual improvement of the nervous and muscular system. One has taken as high as one hundred and ninety drops three times a day. The other two have gone as high as one hundred and eighty drops. One other continued for six months. Of the three still under treatment, not one has shown the slightest indication of the grip, either in paleness or neuralgia, and they have each assured me, that of their personal acquaintance they know of no one else that has escaped. My wife's mother is one of the number, and of a family of ten, she is the only one that has not had the disease in some one or more of its forms.

It does not seem that this can possibly be a mere coincidence, nor would one readily adopt so radical a treatment as a preventitive, but I think it should have its place as data of clinical experience in making up an opinion as to the pathology of the disease.

I think I can safely affirm that we are now more than ever before learning a most practical lesson in the value of strychnia, as it seems all observers place this drug in the very front rank in the treatment of the depression of the so-called grip. The value of the drug in diseases of the structures presided over by the nerves of organic life has never, I fear, been fully appreciated. For physiological data see text-books on predominance of motor-efferent-fibres over sensory.

I have seen quite a number of cases that on a casual observation caused me to seriously fear that I had a case of true pneumonia to deal with—the short catchy breathing, with flushed cheeks, etc. [In this particular I must be allowed to differ with Dr. Patton. See differential diagnosis of la grippe in article on pneumonia in JOURNAL AMERICAN MEDICAL ASSOCIATION, March 5, 1892.]

But on careful auscultation, there was something in the râles differing from those of pneumonia of the croupous or congestive form. They were more generally diffused, more or less in both lungs, and there was decidedly lacking later the characteristic dulness manifested on percussion. The sputa, if discolored, was a strawberry—not prune juice sputa, and upon the administration of 5 to 8 gr. doses of quinine every fifteen minutes, I had the satisfaction of seeing my patient turn upon the side and drop off into a natural sleep, after the third or fourth dose—the breathing full and regular, and on applying my ear to the chest, to my entire satisfaction and almost incredulous surprise, I would find that the crackling sounds had disappeared. On awaking, the patient would declare that he was entirely relieved—the phantom pneumonia a thing of the past.

Neither have those cases that I have any knowledge of had the prolonged convalescence of true pneumonia, excepting cases of abscess. I have examined quite a number that were so diagnosed, and have found in none the crippled lung of pneumonia, but one case of abscess of the lung, with cavity.

Again, death has supervened in many cases of people of note in a few hours after the attack, said to be pneumonia, if newspaper reports can be relied upon,

[2] See Hicks in "Words and Works" for April, 1892. Disturbance of the Saturnian equinox with the disturbing power of Jupiter, which he states has not yet reached the middle of the six years predicted disturbance of pestilence, etc.

following an attack of the grip, notably Lawrence Barrett.

Is it usual for patients to die of a congestive and inflammatory lung disease in a few hours? I think not.

Now, if these cases are mis-diagnosed, is it not likely that the treatment is also at fault? If it is a neurosis—neuralgia of the pneumogastric nerve, and death, as it seems to me, when occurring in the acute stage, the result of shock from severe pain, or heart failure from lack of inhibition, the case is clear that none of the ordinary remedies applicable to pneumonia would be sufficient to reach the disease or save the patient's life.

I do believe that full doses of phenacetine or antipyrine, with guarana, will have a tendency to save life by relieving, as I am sure they do, the neurotic pain; and with sedative doses of quinine and salicylic acid—first the one and then the other—will tide the patient over, or in other words, relieve the pain, and after this the recumbent position with milk diet will see the patient safe through, and with proper caution as to diet and judicious care as to over-exertion, a patched-up recovery can be relied upon.

I sometimes doubt if we will ever entirely recover our wonted vigor—sure it is that gray hairs are added to those who have passed the fiftieth milestone of life—and *they* have come to stay. And now let me suggest that if this is a neurotic disease, as I believe you have proven in your able paper, is it not well to reconsider the whole pathological field? And in recent clinical experience of this disease, as well as by analogy, do we not prove that grip is not a disease of connective or cellular tissue? Is there a cellulitis resulting in abscess? does it produce abscess? Is the congestion engorgement of the vessels with swelling or abscess? or is it like neuralgia and kindred diseases, a non-congestive disease, a neurosis in every sense of the word? Inflammatory rheumatism is an inflammatory neurosis, but the same condition existing in the lung would not be a pneumonia. So of la grippe influenza, its pathology is of an entirely different character from the condition of the tissues of the lung recognized as pneumonia proper.

I have frequently been called to act in a surgical capacity, where abscess with periosteal involvement existed as the result of cases diagnosed inflammatory rheumatism, but I never recognized the diagnosis as correct. Neither can I with consistency accept an involvement of the lung in an inflammatory neurosis as pneumonia, neither can I understand from my personal observation, clinically, how there can be coagulated lymph deposit from a neurotic inflammation, such as we see and recognize as la grippe; but we can have an outpouring of serum from relaxed tissue, as manifested in local sweating and in the watering of the eyes from intense neuralgic pain, and from such phenomena I can understand how there might be an infiltration into the pleural cavity and into the bronchioles of some part of the lungs, causing circumscribed dulness and resulting in abscess through mechanical pressure and paralysis, as witnessed (in a more extended phenomenon) a few days since in the corpse of a young man who had died but a few minutes before, sitting up in his chair, where I found him. In this instance it seemed clear to my method of reasoning that death was the immediate result from asphyxia, the lung being flooded with its own serous extravasation. Laennec taught that pulmonary œdema may occur as a primary condition causing suffocative orthopnœa, but whilst this case was one of clear orthopnœa—the patient having risen upon the feet and even made efforts of jumping from the floor, crying out "I feel so strangely, I am smothering"—yet I believe there are conditions here brought about by a loss of power within the pneumogastric nerve so nearly approaching total paralysis—not quite equal to the severance of the nerve, in which sero-sanguineous fluid infiltrates the tissues—but so near it as to dilate the vascular system, allowing only the pure serum or water of the blood to filter through. When he was laid upon a lounge, the clear serum first bubbled from his nostrils, then with the effort of resuscitation, in pressing upon his chest, it came in gushes from both of the nostrils, until at least two quarts were discharged before I left him, and still it continued, if considerable force was used in pressing well down upon the sternum. This man "had had the grip," had not been confined to his bed, but had been up and around, though "as pale as death," as expressed by one of the family.

This is the grip and not a sequence of it. It is the disease, unrecognized and neglected, I fear, by the profession which the people rely upon for advice in sickness and for the prolongation of life, and whilst I am no writer and slow to put myself in print, this thought has pressed upon me until I am constrained to give it utterance through a medium that I believe capable of giving the matter that consideration which its importance merits. Therefore I lay it before you to judge of its merits, and give it such notice as in your judgment you think best.

Since writing the above I have had two cases of note. One in corroboration of the lung theory advanced above, in the person of a little girl 9 years old. The whole family, with the exception of the mother, had suffered more or less from the grip, this child being the last to take down. She has a history of what they call "tisic" since she was a baby. She has shown lung trouble whenever she contracted a cold. The cough was a marked symptom for two or three days of her sickness prior to the time I saw her. She had taken quinine in moderate doses, until at the time I was called the stomach had rejected it. I ordered a mixture composed of antipyrine, 25 grs. to the oz. each of elixir of guarana and paregoric, to be given in teaspoonful doses, in a mistake, I thinking there was twice the amount of antipyrine to the dose in the quantity given. The patient continued in a condition to create alarm on the part of the family, so that I was again sent for. I found the breathing catchy, about 60 to the minute, the countenance pale, with a flush on either cheek. She lay prone upon her back, as in such cases with extreme exhaustion. There were crepitant râles over the whole aspect of both lungs, but no dulness in any part on percussion. I doubled the dose of medicine as above given, and left the house for half an hour to visit a patient in the neighborhood. When I came back, there was evidence of marked change in the improvement of the symptoms. I repeated the dose, and in less than one hour from the time of taking the first dose, she had turned on the left side and was in a healthy sleep, such as she had not before enjoyed for two days and nights. The breathing was full, easy and regular, with scarcely a bronchial râle to be detected, and she is now, two days later, comparatively well, with

no pneumonia or other lung symptoms. Salicylic acid in 8-gr. doses was substituted for the quinine, but the restoring influence seemed to be from the anti-neurotic effects of the antipyrine, combined with the stimulant and anodyne effects of guarana and paregoric.

The other case (as showing the pneumogastric involvement with its expression upon the heart, with possibly an involvement, also, of the sympathetic fibers entering into the cardiac plexus, all having their origin in the medulla), was that of a passenger conductor on the Vandalia system, running out from here to Indianapolis and return, both ways about 146 miles.

He had suffered for a year or more with the grip in mild form. He was a neurotic subject, all of his brothers having died of consumption. His mother had eczema all her life. His height is about 5 ft. 11 in., and his weight 120 lbs.

At about 1 o'clock at night he awakened his wife and son, telling them that he thought he was dying. He was somewhat confused and made some effort to move about, but was prevailed upon to keep quiet. He said the trouble was about his heart. I was called and reached the house about 1:30. I found a fluttering pulse-beat, which after repeated effort I was enabled to count by tens, his son holding the watch. I made out in two successful efforts 200 beats in fifty-seven seconds. I gave him at once 10 grs. of quinine and a mixture of antipyrine 7 grs., 2 drachms of elixir of guarana and a tablespoonful of paregoric. In thirty minutes the patient began to realize a sense of relief, and the pulse-rate had perceptibly diminished frequency with increased volume. The dose as last described was repeated, and in half an hour the pulse was still further improved to 140, with good wave. The patient dropped off into a natural sleep. I visited the house at 11 o'clock the next morning, and was informed that with some difficulty my patient had been prevailed upon to give up his run at 7 A.M., and was then up town on business. He returned whilst I was still at the house. His pulse was 116 and he declared he felt quite well, only a little weak. After resting half an hour, the pulse dropped to 96. I took the pulse two weeks later, 86—and he is constantly on duty, running 146 miles a day, as passenger conductor on Indianapolis train.

I believe the only remedies in all such cases are those applicable to neuralgia—sedative doses of quinine and salicylic acid, as above indicated, when the urgency of the case does not call for more prompt relief, as in the last cases. Antipyrine with guarana has been my preference, for the relief of pain and other discomforts neurotic in character; though with a limited experience, with phenacetine, I believe as good results might be obtained.

The prejudice existing against antipyrine has, so far as my personal experience goes, no foundation in fact. With the combination of antipyrine and elixir of guarana, I have no hesitancy in increasing the dose all the way from 8 grs. up until the desired result is obtained. I have had just as gratifying results with the remedy where there was the depressed or diminished heart's action, with pain and paleness, as in the increased with pyrexia.

I would propound numerous questions to the profession, but when I come to select, I find that one so intimately involves another, which with the necessity of elaboration to make each one intelligible in its bearings, I find it only possible here to give a few points in elaboration. But first, if the disease now prevailing is not one of neurosis, or from anæmia-starvation, or depression of the central nerve cells, why is this stage of paleness precedent to the expression of either influenza or la grippe? The former a catarrh of the air passages of respiration, the latter the expression of neuralgic pains in different parts of the body, possibly more frequently the chest. If this is true, as I have observed, that paleness precedes such attacks, is it proper to designate the other expressions, as those of pneumonia, falling out of the hair, diseases of the alimentary canal, the reopening of old syphilitis, neurosis, etc., *ad infinitum*, as sequelæ of la grippe, or are they part of the phenomena of the disease or state of central depression, and the influenza and la grippe, one and a part in common with the others indicated? My cases of dysentery of last summer, when an epidemic raged here, were all treated with grip remedies (with little variation from that used in the lung influenza) suggested by the characteristic paleness of countenance and tongue, with the neuralgic pain in the back of the head. Some of them "had had the grip," as they expressed it. All yielded readily to the salicylic acid treatment in combination with subnitrate of bismuth, with the pepsin which I always find best to combine with the large doses of salicylic acid, as stated above. If this paleness with malaise does precede the attacks of influenza, is it logical to assume that the other phenomena of inflammatory neurosis are sequelæ of the grip? It seems to me that we are here taking effect for cause, and that la grippe *per se*, is only one expression of a cause first manifesting itself in the brain cells, especially the medulla oblongata, the seat of the pneumogastric and vaso-motor, with possibly—in fact most probably—some of the centers in the cord. I do not believe that the disease is one of pyrexia, neither psychosis, influenza, neuralgia or myalgia. The only symptom that I can conceive as characterizing the prevailing epidemic is that of paleness of the countenance, with a peculiar whiteness of the tongue, which is not in the early stage coated or furred, but has the appearance of having been soaked in milk—the surface in its whiteness suggesting to my mind that comparison.

That alone can account, it seems to me, for the "babble" of confusion expressed in the literature of our journals from various sources of authority, of men in high places. One will speak of pneumonia following grip, another of the differential diagnosis of la grippe and pneumonia, œdema of the lungs, pulmonary congestion and hypostatic congestion, etc. [See for latter an article in THE JOURNAL, Chicago, March 5, 1892.]

In conclusion, for I am now far beyond my intended limit in the letter, or paper, as you please:

I place the seat of the disease principally in the medulla, with its first expression in the sympathetic nervous system, as manifested in paleness; next a neurotic condition of the pneumogastric, as manifested in coughing, vomiting and pain, with later possibly an extension to the spinal cord, manifested in neuralgia, myalgia, etc. The psychosis may be only an expression through feeble or depressed vital force, exciting or inducing to insanity those formerly so affected or predisposed, in the same way as eczema, syphilitis, etc., returned.

Since commencing this article as an open letter to

my friend Dr. Hughes, I have elaborated, as clinical experience and research into the journalistic literature of the subject have given data, until the present, having no cause to change, but much grounds for adding to until the time, first, of presenting it to the Vigo County Medical Society for criticism, and since its reference to this body, I have been somewhat at a loss to formulate my opinion so as to give to the disease a comprehensive designation.

It seems to me that the epidemic now prevailing can be designated by no better name than an epidemic malaise, manifesting itself in various neuroses, each differing from the other as controlled by climate or season, individual weakness and predisposition. Adding to what I have before written as to its non-specific character of influenza—catarrh, nor la grippe, sudden seizure, neuralgia and myalgia, neither psychosic nor pyrosic; but that individual cases may go on to the fatal termination of heart failure or pneumo-hydrix (name coined for want of a better, meaning water or serum within the air cells or bronchioles) cited; and what has been claimed as "the depression following grip," without the previously recognized manifestation called grip: I wish to call your attention to an editorial in THE JOURNAL, Chicago, of April 9, 1892, which I think has a strong bearing upon the subject, but falls short in its range of comprehensiveness. The writer, after referring to the sad fate of an eminent writer and teacher of our guild, speaks of the necessity of a spring vacation, based upon the fact, as stated, that doctors for the last two or three years do not stand the winter's work as formerly, says: "Malaise and a propensity to lassitude indicate that many a hard-worked physician may be under the epidemic influenza without being *sick* (italics are mine) enough to give up work."

It occurs to my mind here that a like thought and interest on the part of doctors would show them that others, as well as his brother, were entitled to and need the same consideration; that though not sick with pain and fever they, too, need rest or treatment, if not both—else, as in the instance of the eminent brother referred to, "the doors of the insane asylum —or the coffin lid—will close upon them."

This was followed by a paper on

A MODIFIED FORM OF CONTINUED FEVER FOLLOWING THE EPIDEMIC LA GRIPPE.

BY JOHN H. HOLLISTER, M.D.,
CLINICAL PROFESSOR OF MEDICINE, CHICAGO, ILL.

The remarkable epidemic of influenza which appeared on the confines of Russia in the autumn of 1889, and which during the following winter spread over nearly the entire area of the two Continents and which, in like manner and with even more fatal results re-appeared in the winter and spring months of 1890 and 1891, was conspicuous for the rapidity with which it traversed the two hemispheres, for the added intensity which it gave to our ordinary diseases and for the profound and prolonged prostration of those of its subjects who survived its fatal effects. Its differential diagnosis was the more difficult, by reason of its simulation of the ordinary symptoms of our endemic diseases. The numbers of our people that were affected, the unusal severity of their sicknesses and the alarming fatality which resulted therefrom, was proof beyond question that this epidemic was exerting a most profound influence upon every form of disease which we were called to treat, but by what agency or in what manner such result was accomplished, the most astute and scientific of observers were unable to determine.

It will not be the purpose of this paper to discuss either the etiology or the pathology of this disease only in so far as it shall be necessary to trace its influence in the modification of our ordinary diseases and possibly in paving the way for the appearance of some forms not hitherto observed.

Doubtless every physician whom I have the honor of addressing has had abundant opportunity of studying this disease at the bedside and has had occasion to note its exceedingly diverse manifestations, in connection with various forms of affection in different patients.

A sense of profound prostration was the universal complaint, whatever the form of disease. The nervous system seemed to bear the brunt of attack and such was the effect upon the vaso-motor system that the vascular organs, when involved, seemed the more imperiled. By reason of the frequency of severe catarrhal symptoms, it was from the first termed influenza, but while the respiratory organs were most frequently involved and with a larger fatality resulting therefrom, still each of the more vascular structures, as for example, the intestinal mucous membrane, the liver and the spleen, were apt to be affected and with a severity of symptoms not common at other times. Its depressing influences told severely upon our aged people and multitudes of these were borne down from simple physical exhaustion. The loss of muscular power was a common complaint and numbers died from the affection termed heart-failure.

Nervous prostration was a household expression and unhappily it was, by no means, a creature of the imagination. Mental vigor was often times greatly impaired. Men in responsible positions were obliged to lay down their business by reason of the failure of their mental powers, professional men were especially prone to suffer in this respect and while slowly recovering, they were for long periods of time conscious of an inability to grapple with their professional duties as before time.

Mental depressions and despondencies were characteristic of this disease. Insanity was of more frequent occurrence and even suicides became more common. An added intensity seemed to be imparted to every form of disease and directly or indirectly from its influence upon the masses of the people such an increased death rate was achieved as has been equalled in no other epidemic, cholera not excepted. Some specific cause must be responsible for such a wide spread epidemic and for such results. Suspicions point to atmospheric and telluric influences and again to the undiscovered microbe, but as yet the specific cause remains unknown.

Now that this wonderfully pervasive epidemic has disappeared, it concerns us all to know to what extent if any, it shall exert a modifying influence upon our ordinary diseases and whether in its pathway new forms of affections shall arise.

While men are every where studying the former of these questions I will venture to discuss with you the latter, by bringing to your attention a form of continued fever which fell under my observation and which for a period of time was widely prevalent in Chicago. In that city, during the months of

February, March and April,1891, the epidemic termed la grippe had been remarkably prevalent and with a fatality before or since unparalleled. A comparision of the death rate during these months, with the corresponding months in other years, after making due allowance for the increase in population, will serve my purpose best: In February 1889, the death rate was 15.50 per 1,000; in February 1890, the first year of the epidemic, it was 22.03 per 1,000; in February, 1891, 19.24; in 1892, 21.84. In March, 1889, the rate per 1,000 was 18.22; in March 1890, 12.52; in March 1891, 34.05; in 1892, 20.43. In April 1889, the death rate was 16.72 per 1,000; in April 1890, 17.46; in 1891, 34.50; 1892, 20.19. In May of this year the epidemic had gradually disappeared and the death rate had fallen to less than 19 in 1,000. It was during this month that a form of continued fever became very prevalent in Chicago. It did not seem confined to particular localities, nor classes, nor conditions of people. Almost, if not all our practicing physicians, were called to meet it frequently in private practice and the fever wards of all our hospitals were crowded to their utmost capacity. The cause of this so prevalent disease could be traced to no common source, either of water polution, defective sewerage or any other known causes of contagion. It was thus prevalent during the months of May, June and July of that year and immediately succeeded the three months of severest visitation of la grippe. It had well nigh disappeared in the following August, and thus far there has been *no* reappearance. At the date when this form of fever began to be prevalent I not only met it often in private practice and in consultation with other physicians, but being then on duty in one of our largest city hospitals, my attention was at once called to the crowded condition of our fever wards and to the unusual number of cases which were registered typhoid fever. I soon began to notice a very striking resemblance one with another, in a large number of these cases, so that the history card of the one might be easily duplicated with many an other one with only slight variations. I also began to observe that while in some important features these cases resembled those of typhoid fever, yet in many other respects the symptoms were essentially different. From a much larger number of hospital cases at my command I have selected the history cards and records of fifty well defined cases and after a careful comparison of these am able to give the following as an average portraiture of the disease. I may presume a general description by saying that neither the previous history, nor occupation seemed to throw light upon the exciting cause, for while some had just previously suffered from la grippe,an equal or larger number had not been sick until now.

The prodrome was apparent for from one to five days, with special complaint of extreme muscular soreness and general prostration. The onset of the fever was usually gradual and without chills. It was *continuous* and so uniformly without intermission that by common consent it was everywhere termed typhoid fever. The average duration of the disease or the time that the patient was confined to the bed in the cases here cited was 23¼ days.

Early in the history of each case a high range of temperature was attained and this was maintained in a remarkable manner during the entire course and until convalescence was fairly well established. There was usually only a moderate demand for drinks, food was repulsive and rapid emaciation ensued. In giving reports of *pulse*, *respiration* and *temperature*, these averages for sake of brevity are taken in periods of five days each. For the first five days the average morning temperature, dating from the term of attack was 101.3, pulse 92, respiration 32. The evening record for the same days, 102.8, pulse 101, respiration 38. During the second period of five days the morning average was 102.1, pulse 113, respiration 39. During the evenings of the same days 103.4, pulse 118, respiration 39.6. During the third period of five days it was difficult to make satisfactory averages, since in some instances the temperature became nearly normal, in others it remained at a high range until convalescence had been well established, but in other instances, by reason of indiscretion in eating or from other causes severe relapses had occurred. It will be observed that the frequency of the pulse was almost never in proportion to the range of temperature and this was also true of respirations. Referring to the conditions of the nervous system I may briefly state the fact that aside from a sense of prostration the nervous symptoms were by no means as severe as is usual in ordinary cases of typhoid fever. The cerebral organs and the nervous centers generally were rarely severely involved. Pain in the head was not a usual matter of complaint. The intellectual faculties were rarely disturbed, there was neither delirium, coma nor subsultus, even in the more severe cases. The secretory action of the skin, mucous membranes, liver and kidneys was notably diminished, and the resumption of their normal functions was unaccompanied with what are termed "critical discharges." It should be said with reference to these cases, that in four instances for the first ten days proper and continuous perspirations rendered them exceptions to the rule. The organs of digestion were matters of continuous observation and study in these cases and in these were found the most marked variations from the symptoms usually observable in typhoid fever.

The mucous membrane of the mouth was intensely *red*, but the secretion of the sublingual glands was such that the mouth was seldom dry and parched and sordes were not found upon the lips and teeth. The tongue had always a bright *red* appearance and in almost every instance even to a marked degree, spear pointed. It had never a dry brown coating nor glazed center,nor fissures, usually rather moist at the edges, the dorsum of the tongue being almost always covered with a clean *white* coating, as white as though it had been smeared heavily with a coat of white paint; and appearing thus for many days.

As a rule there was an entire loss of appetite and emaciation was rapid. The demand for drinks was only moderate, vomiting rarely occurred and pain in the epigastrium was seldom a matter of complaint.

The bowels were not tympanitic nor tender upon pressure; in none of the cases was peritonitis developed. In nearly every case during the entire course of the fever, the bowels remained constipated, usually requiring laxative medicines and enemas to secure their proper action. In only three instances did the alvine evacuations resemble those usually found in typhoid fever. In each of these cases the discharges were carefully examined by competent expert, but in neither of them was the typhoid bacillus discovered. In fact in these fifty cases there was an

absence of those symptoms which usually so clearly indicate the presence of abdominal lesions, in the great majority of cases of typhoid fever. The kidneys did not seemed to be involved in this disease. The urine had the appearances which are usually present in continued fever, with occasional sedimentary deposits of uric and phosphatic salts and contained neither albumen, casts, blood, pus corpuscles, nor sugar, and only in a few instances a small amount of bile. There was a noticeable tendency to relapses in the later stages of this disease but in almost every instance where there was a sudden return of high temperature it seemed attributable to an indiscretion in diet. Watchful as the interne and nurses might be, as the appetites of convalescing patients became clamorous, supplies of fruits and of indigestible food were sometimes stealthily obtained and almost always, an added week or more of severe relapses was the penalty which was paid.

I will not presume to consume your valuable time, by any extended narrative of the treatment of these cases. The characteristic feature, more than any other which obtained during nearly the entire course was that of excessive temperatures. In this connection I wish to state that much less satisfaction than we had anticipated was found in the use of either mild or heroic doses of the recently introduced *antipyretics*. Our main reliance for reduction of temperature came to be upon the frequent repetitions of spongings and sheet and towel packings with the liberal use of moderately cold water. Convalescence was more rapid than is usual in typhoid fever, and intercurrent affections of any importance were rarely developed, although a sense of debility remained for long periods of time. Only three of the cases here cited proved fatal, one from pneumonia developed in the third week of the fever, and two from physical exhaustion without any apparent local lesion; neither of the fatal cases seemed to suffer from intestinal lesion. Except in the case of pneumonia the post-mortem examination failed to reveal any special local lesions.

The fact that this fever was so generally prevalent in our city as to be regarded as another epidemic, the fact that it was usually designated as typhoid fever, both in hospital and in private practice, that it so closely followed in the wake of la grippe, and the further facts which I have detailed which seemed to render it *distinct from* typhoid fever, have been my warrant for presenting this subject at this time and for seeking the judgment of the profession as to whether it is to be classed with ordinary continued fever; whether it should be termed typhoid; or whether, and as I believe, it was developed by some unknown cause, perhaps modified by the epidemic of la grippe, presenting, in fact, a *new form of continued fever*. The surrounding conditions of these patients were the same as in other years, yet with an experience, in that hospital, which dates over twenty-five years I had not had a like experience in the observation and study of *fever*. The epidemic, if I may so term it, disappeared almost as promptly as it came and though from that time to this our environments have been the same, yet up to this date there has been no re-appearance of this disease. Without presuming to suggest its *cause* nor to explain its pathology I have ventured to consider it as a distinct form of continued fever, following closely upon the subsidence of *la grippe*.

Dr. Didama, of New York, asked the last speaker whether the color test of the urine had been found in his cases; also, what was the character of the tongue; whether these and other characteristic signs of typhoid fever were present or absent in the cases which he had reported.

Dr. Hollister replied that the color test was not made, but that the appearances were similar to those in typhoid fever. The diet he had employed was of milk and pre-digested foods. There was an absence of the eruption and there was marked pallor, except here and there a spotted condition. There was the absence in these selected cases of petechial spots. The speaker had selected fifty cases which had given him symptoms most unlike those of typhoid fever.

The next speaker agreed with Dr. Link, on the neurotic origin of the disease. He had been in the habit of describing la grippe as affecting the nervous system, or the lungs, or the stomach and bowels. In nine cases out of ten it commences with vomiting rather than with diarrhœa, as is usually the case in enteric fever. His treatment of typhoid fever was the old hydrochloric acid treatment; but the grippe, he treated as though it were a neurosis. The difference in the treatment was striking, but the difference in the duration of the disease was also striking. I think, he said, that there is a distinctly neurotic type of the disease, of which we had a great deal in 1889, a pulmonary form, affecting the pneumogastric and the fifth pair of nerves, and a gastro-intestinal form affecting the pneumogastric and vagus.

Dr. Eckles, of Iowa, thought that if Dr. Link's premises had been correct the conclusions would have been correctly drawn, but the error lies in the fact that his premises are wrong. Therefore, his conclusions are also incorrect. He then entered into a discussion of the various kinds of nerves and concluded that the influenza was not likely to attack a nerve consisting of mixed elements like those of the pneumogastric. He thought the symptoms observed in each and every case of influenza physiologically contrary to what we would expect from a "nervous depression" of the pneumogastric nerve.

Dr. Hemingway, of Illinois, could not agree with Dr. Link or the last speaker as to the origin of la grippe. He did not think that the disease was primarily of nervous origin, but that this nervous disturbance was the result of some toxicity. If we had only the nervous origin, how could we account for such influences as the weakening of the heart due to fatty degeneration? The mildest attack may be followed by heart-failure and death. The only reasonable explanation which we have for the phemonena is that the poison, whatever it be, whether a ptomaine or something else, affects the heart in a way to produce fatty degeneration and atrophy.

In regard to the fever spoken of by Dr. Hollister, it seemed to the speaker that we have here the evidence of some ptomaine working. He had observed that in this disease, if he saw the patient early and administered a good dose of calomel he did not as a rule have to see the case a second time. He had seen more cases but once than he had seen five or six times during the epidemic. On the contrary, he had found that where quinine, antipyrine, antifebrine, etc., had been given, he had to see the patient often. The most obstinate and most prolonged cases were those in which acetanilide had been given. Opium does have a curative effect, but the mercurials of some form stimulate the glandular system so as to counteract the production of ptomaines and are far more efficient than any other.

Dr. N. S. Davis, Jr., of Chicago, remarked that the most persistent symptoms in la grippe are the result of toxic agents, and that the disease may be regarded as a neurosis in the majority of cases. Unfortunately in many cases there are symptoms associated with the nasal and other mucous membranes producing the effects that have been referred to as nasal, gastro-intestinal catarrhs, etc. In one epidemic these symptoms prevailed to but slight degree. Another fact which had not been brought out during the discussion, had impressed the speaker as an important peculiarity during the subsequent epidemics, was the contagiousness of the disease. He could not help thinking that it was contagious on account of the great frequency with which it attacked large numbers in the same family, the same factory or house. It occurred much more frequently in those working in doors than it did in those out of doors.

Dr. Herrick, of Cleveland, agreed with the last speaker as to the contagiousness of la grippe. He had observed it in himself and other physicians attending large numbers of those affected with it.

Dr. Kennedy, of New York, asked whether immunity was conferred by one attack.

The question was promptly answered in the negative.
The Section then adjourned until 9 o'clock June 8.

SECOND DAY—WEDNESDAY, JUNE 8.—MORNING SESSION.

The first paper of the morning was

POSITIVE AND NEGATIVE RESULTS OF MEDICAL ACTION.

BY BEDFORD BROWN, M.D.,
OF ALEXANDRIA, VA.
EX-PRESIDENT OF THE MEDICAL SOCIETY OF VIRGINIA, MEMBER OF THE MEDICAL EXAMINING BOARD OF VIRGINIA, MEMBER OF SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION, AND OF THE AMERICAN MEDICAL ASSOCIATION.

I have long been impressed with the importance of studying and clearly comprehending in the application of our therapeutic agents, the positive or negative, the certain or uncertain action of our remedies. It may be said now that this is a question duly considered by every intelligent physician. I think that I can demonstrate to you during the course of this paper that this question, even at the hands of intelligent, competent physicians, does not always receive the consideration that it merits.

This question of the positive and negative results of medical action is eminently a practical one. The more closely one may calculate upon and approach certainty of results in medical action the better will be our results in the treatment of disease.

On the contrary, the less attention we pay this important question, the less weight we attach to the character and action of our remedies, the more unfavorable will be the results of our practice.

In summing up an aggregate of the fatal cases in practice we will find that a certain proportion is due to the incompetency of the physician, incorrectness of diagnosis and ignorance of appropriate therapeusis; another proportion from the incurable character of disease, and another still from carelessness of physician and nurse.

But, notwithstanding our diagnosis may be correct, and our therapeusis proper, and we may be entirely competent to treat disease, our success in its treatment may be signally defeated and the results of our medication may be absolutely negative, because of the manner in which our prescriptions are compounded: because of the adulteration in the manufacture of drugs or the substitution of cheap and inferior preparations for those of a standard quality and value.

In these may be found some of the principal causes of the negative results of medical action and of the uncertainties of medicine. A single dose of a worthless, inert, impure, adulterated or insoluble or inferior substituted medicine may cost the patient his life, and the attending physician his reputation. The reputation of the physician is his capital, and that capital is acquired alone by his success in practice. In the acquisition and preservation of the capital it behooves him, like the banker or merchant, to look to the details of practice and to know more than the certain and positive actions of his remedies. If he finds his cases retrograding in progress, there is surely an error somewhere, either in his diagnosis, in the selection of his remedies, in the nursing, or in the character of those remedies, or in the method by which they are prepared. In the administration of therapeutic agents their action must be either positive or negative, and the results either good or bad.

In treating of the subject of negative medication, one of the first and most important questions for consideration is the solubility or insolubility of medicines in the human stomach.

The pill is probably the pharmaceutical preparation in most general use, and of all others is the most liable to be prepared in an insoluble manner. No one can well over-estimate the importance of the simple question of the solubility or insolubility of the *pill* in the practice of medicine, in the results of treating disease. There can be no doubt that a very considerable proportion of the medicines prescribed in the form of the pill are absolutely insoluble in the human stomach. And so far as any remedial action is concerned they as well might have been dispensed with. Of course, such medicines can exert no influence one way or the other, for good or evil, on the progress of the case, whether it terminates fatally or not.

In regard to the use of insoluble pills and capsules in treating disease, my attention was called to this subject some twelve years since in a most positive, but unpleasant manner, and I cannot impress the subject upon the attention of the audience better than by relating a history of the circumstances.

I had under my care a very bright and interesting boy of fourteen, with a most violent form of adynamic malarial fever. I was prescribing twenty grains of quinine per day in divided doses, in what was intended to be fresh pill form.

Instead of fresh pills, the druggist had, as I discovered only too late, been dispensing sugar coated stale pills. The temperature of my patient, most unaccountably to me, notwithstanding the regular administration of this quantity of quinine, was daily increasing. I increased the quantity to thirty grains per day and obtained no better results. On the contrary, the temperature rose to 105° accompanied with delirium, great prostration and dry tongue. In addition I used other antipyretics and frequent cold sponging. Very suddenly the temperature leaped up to 106°, and as the child was then suffering much from diarrhœa I asked to see the alvine discharge. In the discharge examined I discovered two or three small white balls. They were washed and examined, and found to be sugar coated quinine pills perfectly undissolved. The mother informed me that she had observed those lumps, as she termed them, in all the discharges when examined, but supposed they were peculiar to the disease. There was an explanation of my patient's steady and downward progress. Probably not a pill had been dissolved in the stomach and not a grain of quinine had been absorbed into the system. My patient was lost, not from incorrect diagnosis, not from the prescription of improper medicine, not from careless or ignorant nursing, but from the use of an insoluble pill. Subsequently to this I was attending an interesting little girl of twelve, with malarial fever. I observed at my daily visits that the condition of my patient was growing worse, notwithstanding she was then taking twenty grains of quinine per day in pill form. I had ordered from the druggist some freshly prepared quinine pills. The temperature of my patient now rose to 104½° on the border lines of danger. At this stage, as the child was suffering from diarrhœa, I inspected the discharge and found two undissolved pills. On inquiry the mother informed me that she had observed them in almost every discharge, but supposed them to be peculiar to the disease. I called on the druggist in person and found that he had been

dispensing throughout the case sugar coated pills. I then ordered fresh pills to be made, but unfortunately they were compounded with gum arabic, and the next day they were also found in the alvine discharges in an undissolved condition.

I now prescribed twenty grains of quinine in solution per day, and in twenty-four hours the condition of my patient was better, and her subsequent progress was uninterrupted. The only excipient I have found that would render a pill perfectly soluble in all grave forms of fever, is pure *honey*. Gum arabic, gum tragacanth, even sugar will render a pill insoluble in these conditions.

In the grave and malignant forms of fever the functions of digestion are reduced to a minimum, and the capacity to dissolve either food or medicine is diminished to the lowest degree.

To a digestion impaired to this degree we must be careful to adapt the solubility of our medicine. To patients with these grave forms of disease, I order only pills freshly prepared with simple honey or glycerine. I have inspected the discharges of patients repeatedly when taking pills prepared in this manner, and never found one undissolved.

Indeed, in the grave types of fever of all descriptions where certain organic changes of the mucous membrane of the alimentary canal have taken place, rendering them incapable of performing their proper functions, and the great sympathetic system is partially paralyzed for the time, they are not in a condition to dissolve a pill in any form, and then medicine in solution can be given, and I prefer quinine in a solution of muriatic acid. In this condition of affairs to give an insoluble pill is to permit your patient to die. When the temperature of our patient reaches 104°, his condition is growing serious and he needs medicine in a form that will act promptly and speedily. When it rises to 105° he is on the border lines of danger, and when 106° is attained I trust not medicine in pill form, as a stomach at a temperature of 106° will hardly dissolve a pill twelve hours old sufficiently rapid to meet so grave an emergency. Then the antipyretics must be given either in solution or powder. I feel satisfied from my own personal experience that a certain proportion of human lives have been sacrificed from neglect of this principal alone.

In these alarming conditions we cannot trust the lives of our patients to the uncertain chances of the solubility of a stale sugar or gelatine coated pill or capsule.

I have on repeated occasions when the temperature had reached dangerous limits, and the alimentary canal was incapable of dissolving a pill, and rejected a solution of quinine, given, by enema in mucilage, that article in thirty grain doses with the happiest effect.

During an epidemic of grave malarial fever I had a case of specially malignant type with a temperature of 106° that had been taking twenty-five or thirty grains of quinine without effect in pill form. I ordered an enema containing forty grains of quinine in a gill of milk and thirty drops of tincture of opium. The temperature fell to 103° in twelve hours, and then in twelve hours more to 101° on repetition of the enema. These details would seem to be of small importance, but in the treatment of disease they are of practical worth.

There is a question that arises now whether the cool bath in very high temperature does not aid the digestive organs in dissolving both medicine and food. I believe that it does promote that object. The hurry and bustle of the age, the desire to economize time and labor, and the thirst for gain are responsible for much of the delinquencies of both manufacturers and druggists. For the past twenty years the country has been flooded with sugar and gelatine coated pills and capsules that are kept and dispensed in a stale and too often insoluble condition to fill prescriptions for the very gravest as well as the mildest cases. It behooves us to look well to the solubility of our remedies given in all grave forms of disease as typhoid or malarial fever, pneumonia, dysentery, cholora morbus, diarrhœa and in all other cases where the vital condition is reduced to a low standard, or we may surely expect to obtain negative medication and unfortunate results. For the purpose of illustrating more clearly the important principle involved in this question, I think it proper to recur again to the relative capacity of the digestive organs in disease to dissolve solid substances. For instance, I have known a hard stale pill to remain in the stomach for twenty-four hours and then be rejected in an undissolved state. I have known a portion of crust of bread to remain fifteen hours and then to be rejected without having undergone digestion. I have known in the case of a child a portion of green apple to remain twenty hours undigested after being swallowed, and then rejected by an emetic. I have seen a hard portion of fruit cake to remain in the stomach undigested for nearly twenty hours, and then came convulsions that were relieved by its final rejection. Even in transient conditions of indigestion the capacity to dissolve solid substances is greatly reduced. To recur again to the question of the solubility of the pill, while it is true that a perfectly healthy stomach and vigorous digestion might dissolve even the stalest sugar or gelatine coated pill, in a large proportion of cases they would pass through an entire alimentary canal in a state of disease, with its vital standard reduced, and our object would be defeated and the result of our medication would be *nil*. In the prescription and administration of medicine and food in grave forms of disease how few of us take into consideration the lowered standard or capacity of the stomach to dissolve ingesta. But there are various other agencies of equal importance by which we can derive negative results in the application of our remedies.

The criminal adulteration of drugs by dishonest manufacturers is another means not less important and more reprehensible. For this our profession is, in part, to blame, as they too often encourage obscure, unscientific, dishonest manufacturers, simply because their productions are cheaper. The laity is always captivated by cheap drugs. To them the opportunity to purchase cheap medicine is that much saved. They are prone to regard cheap medicine in the light of a bargain as they would cheap groceries or cheap dry goods. This crime of adulteration of drugs might be in a measure, if not wholly, corrected if medical men and patients would patronize alone honest, skilled manufacturers and druggists.

There is a popular delusion that cheap druggists and cheap drugs, like cheap groceries and cheap clothing, are profitable things to patronize. The profession should in every manner possible endeavor to correct this delusion. This is the cause of an infinite

amount of injury in defeating positive and certain medication.

Pure drugs always command a standard value and no pure drug can be sold for less than the standard price without loss. Hence, the very fact that drugs are sold cheap is an evidence of their impurity. The practicing physician should condemn and seek to avoid cheap druggists and cheap drugs as dangerous things to the success of his practice.

This crime of adulterating medicine and the dispensing of cheap, inferior and inefficient medicine has lost many patients their lives, and physicians their reputations.

To the honest, skilful manufacturer and druggist, both the profession and patients owe a great and lasting debt of gratitude. It is a genuine true pleasure and satisfaction to know that our prescriptions fall into the hands of such men.

There are pharmaceutical manufacturers whose productions never fail to come up to the correct standard, and druggists who never fail to compound their preparations correctly. It is only too true that there are others that cannot be depended upon. There should ever be existing a close, mutual relationship and confidence between the physician and druggist. It is of importance and advantage to both, and equally to the interests of both professions. As a means also of promoting negative medication, I desire to allude here to another criminal act on the part of dishonest druggists, the substitution of inferior and cheaper articles in filling prescriptions for those of purity and standard value. No one but a dishonest druggist could do this. And the man who would be guilty of committing this act would not hesitate to commit any other dishonest deed. He could not be trusted in anything. Yet we know that it is a not uncommon vice that our profession has to contend with. And it has been, and is being the means of defeating our success in our daily practice, and is an obstacle exceedingly difficult to deal with. The substitutor of drugs does not make a boast of dispensing cheap medicine, but sells for full price, and makes full profits, and until he renders himself liable to suspicion, makes his rascally business profitable at the expense of human life and professional reputation. When we order such elegant and pure drugs as Squibbs' chloroform, ether, ergot, we know what we are using. We expect certain positive effects and results. But when the dishonest druggist substitutes an inferior for a pure article, both the patient and physician are at his mercy. But, nevertheless, he goes on reaping enormous profits from his nefarious practice.

The great majority of druggists are honorable, high-minded men, competent in their profession, who would scorn to commit a dishonest act. But it is only too true that there is another class who are not above the grade of disreputable tricksters in the commonest and lowest trades of life. In this way the druggist who is guilty of substituting becomes an efficient agent for the promotion of negative medication.

In the past fifteen or twenty years there has sprung up all over the country, from hundreds of manufacturers, vaunted remedies under the title of "uterine tonics," for the cure of organic uterine disease. Under different appellations these preparations are sold and swallowed by the hundreds of gallons by females who are, or imagine themselves suffering from uterine disease. And these preparations are encouraged and prescribed by practicing physicians. I believe this to be one of the patent examples of negative medication.

I do not believe that there is on record a single instance of the cure of organic uterine disease by these remedies. Ergot has power to control uterine hæmorrhage and induce uterine contraction. Beyond these its therapeutic powers does not extend. Yet year after year the physician continues to lavishly prescribe these proprietary preparations when he must know that his results are negative. A remedy of this kind only has to be put upon the market and vaunted as a specific to meet with ready encouragement. The eagerness with which these remedies are caught up and used indicates the great difficulty of treating this class of affections and the disposition of our profession to catch at new and unknown remedies.

There is another subject of importance which is well calculated to defeat the positive action of our remedies, and I have no doubt has often been the means of obstructing our successful practice. I allude here to the common custom by druggists of the present time to facilitate business, of preparing decoctions and infusions of vegetable remedies from extracts often stale, or worthless. Many of our most important and efficient remedies are administered in this form. For instance the infusions of digitalis and ergot are remedies applicable to the treatment of some of the most dangerous forms of disease. Yet how common has it been in my own experience for an infusion or decoction of these drugs to be prepared from a worthless extract that fails to exert any positive action whatever. This is a question of such vital importance, the profession cannot afford to ignore it. I have on numerous occasions prescribed an infusion of digitalis in organic heart affection or pneumonitis and obtained not the least positive effect, and on inquiry found that the druggist occupied just ten minutes in making the preparation, when it should require one and a half hours to prepare an infusion or decoction from the leaf of the plant.

I then ordered an infusion from another druggist to be prepared in the proper manner, and found it all that could be desired. In the case of a female patient, long the subject of cardiac valvular disease, when extensive dropsical symptoms had supervened, I prescribed the infusion, or rather decoction of digitalis. The patient stated that digitalis would not benefit her in any form as she had taken it previously both in tincture and decoction without benefit. I then called on a skilled and reliable druggist and directed him to prepare for her a decoction from the digitalis leaf and consume an hour and a half in the preparation. The effects of this preparation after being administered twenty-four hours were of a most positive character, both on the heart and kidneys, and were such as to astonish my patient. That was twelve months ago, and there has been no return of dropsical symptoms since. The history of this case affords a very satisfactory example of the negative and positive action from the same remedy prepared in a different manner.

Thus, by different methods of preparing the same remedy we may obtain the most opposite results. The patient alluded to above, I discovered on investigation had formerly used tinctures and infusions prepared from fluid extracts only, which the drug-

gist had made hastily in five or ten minutes, and was ignorant of the fact that he had furnished a worthless preparation and was impressed with the belief that he had prepared an elegant article with neatness and dispatch.

Probably at the present time the vegetable extracts enter more largely into the formation of our prescriptions than any single pharmaceutical preparation. And it is equally probable that they of all others are less reliable and more subject to adulteration and are made with less care and scientific thoroughness. It is also very certain that a very large proportion of these are utterly worthless and inert, and in their application we are using remedies that exert no influence one way or the other on the progress of disease. How this great and serious difficulty is to be corrected is a question in which all are interested. I am impressed with the conviction that it is not very difficult to do this and it can only be accomplished by the members of our profession giving their patronage to druggists and manufacturers of known character and established reputation.

There are firms having celebrated establishments for the manufacture of drugs of long standing and whose unvarying reputation for honesty and capability have established universal confidence and whose character is dearer to them than gold. These names, which it would be invidious to mention, we can trust, for they never deceive us.

For some years the fluid extracts as ordinarily prepared I have found to give so little satisfaction I now almost invariably prescribe a decoction or infusion prepared alone from the vegetable remedy in its native state, and I rarely fail to obtain positive effects. I often obtain absolutely negative results from the fluid extracts of ergot, uva ursi, digitalis and other vegetable remedies and get as certainly positive effects from the decoctions of remedies prepared from the article in its native state.

It is said that Lawson Tait found the extract of ergot so very unreliable that he now prepares a decoction from the grain at the time when needed for immediate use.

In a practice extending over many years I have seen so much of the evil effects of what I have here termed *negative medication*, or in other words, the absolutely negative results in the use of medicine arising from the various causes mentioned, I have come to regard it as necessary in any case undergoing treatment when the progress is either stationary or retrograding to consider the simple question whether the action of our remedies is positive or negative, certain or uncertain. Or on the other hand, whether the defect lies in our diagnosis, the inappropriateness of our therapeusis, or in quality, or method of compounding our remedies. Hence, in all cases where serious difficulties arise and the progress of the case is unfavorable, I have come to consider the questions of the character of the compounding druggist; the quality of the medicine prescribed, its solubility or insolubility and the possibility of adulteration or substitution.

Dr. Didama, of New York, said: I think we will all agree with the essayist that many pills do not give us satisfaction. He did not refer to the tablets which we have in soluble form. Most of these are readily soluble. Sugar coated and gelatine coated morphine pills will rarely dissolve. The administration of medicine in capsules is used a great deal; and some of us in the east are in the habit of administering medicines in wafers which are swallowed very easily by persons who cannot swallow a pill. We cannot control the druggist and we cannot always send our patients to the one of our choice, as patients have also their preferences. They take them often to the cheap pharmacist. The speaker favored the dispensing of drugs by the physician.

Dr. Wilson, of Kansas City, remarked that for twelve years he had been a druggist and during that time he had learned something. Since becoming a physician he had dispensed his own drugs, except for a short time. Since doing so he had largely increased his business. The pills of one of the large advertising firms in the United States will invariably pass through the entire alimentary canal without dissolving. The value of our work in the future, in dollars and cents, will lie in our dispensing our own remedies.

Dr. Herrick, of Cleveland, heartily agreed with the remarks that had been made. We are all witnesses, he said, of what Dr. Brown had said. He believed that the dispensing of our own drugs is in the way of progress. This is the custom in England and Europe. It can be done with little expense and trouble. It will greatly improve the quality and the taste of our medicines as well.

The next paper read was entitled

A CASE OF AMŒBIC DYSENTERY.

BY E. P. GERRY, M.D.,
OF JAMAICA PLAINS, MASS.

In calling attention to the amœba dysentariæ, the nomenclature of Councilman and Lafleur has been followed, instead of Lösch, who in 1873 first described the organism under the name of amœba coli. As Councilman and Lafleur say in their admirable work on amœbic dysentery, the name amœba coli is not distinctive, for it is very probable that there may be a number of species of amœbæ which, under certain conditions, infest the colon.

They quote Cunningham, of India, as having found them not only in human fæces, in health and disease, but also in the fæces of some of the domestic animals It therefore seems proper that the more distinctive name is the one by which the organism should be known. Lambl in 1859 discovered certain organisms belonging among the protozoa in the intestinal contents. They produced a dysentery which baffled most observers as to its significance, even in countries where climatic conditions oftenest produced it.

Although ably studied and described by Kartulis in Egypt, as early as 1885, it did not attract that attention which such work deserves. Everywhere the mind of the investigator has been largely filled with such important subjects as bacteriology, etc.

In this country the name of tropical abscess, or dysentery, suggested at such a distance from that latitude, that the likelihood of its occurring among us of the temperate zone was hardly thought of, until Osler, in 1890, first found and described it, and made it evident that it might be brought to, or even originate in a northern country. Since then cases have been found of which the one to be related is a type, which occur unexpectedly, probably from the same but restricted causes which produced the condition in warmer climates.

That they have been unrecognized is undoubtedly true; that this disease occurred in the United States before it was recognized is also true, for Councilman and Lafleur, after a very careful study of the specimens of dysentery in the Army Medical Museum, found undoubted traces of amœbic dysentery. The specimens came mostly from soldiers who died of dysentery during the late war, remaining undescribed until Osler's discovery in 1890 led his colleagues to give special study to all quarters where the disease was liable to be found. In view of these facts, it i

fair to suppose that the profession in America knew very little, if anything, of this peculiar form of dysentery until Councilman and Lafleur presented a complete history of it.

That such a disease with such a cause existed was a revelation to the reader. The object of the paper is to call special attention to it, so that some professional brother may be able to correctly diagnose such a case and properly treat it. That the profession at large is as well informed as it should be on this topic can be doubted. There is no question but that the members of such a National body as the American Medical Association should be urged to study the subject thoroughly, for the authorities say that it is found in most parts of the United States.

More than in most diseases does correct diagnosis make successful treatment possible.

That amœbic dysentery is a form of dysentery which etiologically, clinically and anatomically, should be regarded as a distinct disease, it seems as if no one reading the experiments of Kartulis can doubt. Some will ask, Has he followed Koch's canons; first, by proving that the amœbæ existed in enough cases to make it reasonably certain that they will not be eliminated as the cause of the disease; second, has he been able to cultivate them outside of the body (under artificial conditions); third, when cultivated, has he been able to produce characteristic symptoms when reintroduced into the bodies of animals. Kartulis says he has.

He injected into the rectums of cats the cultures obtained, and found as a result the colon swollen and lax, with occasional small erosions, but no regular ulcers. Hlava, of Prague, supports him in his position, for he injected the stools containing amœbæ into the rectums of dogs and cats, with positive results in two dogs out of seventeen and four cats out of six. Baumgarten, however, although not contradicting Kartulis' positive statements, thinks it more probable that the pyogenic microörganisms play an important part along with the amœbæ in the production of tropical abscess.

That it is difficult to tell absolutely just what they will do, and where they will be found is likewise difficult, for they are reported as having been found in the bladder and vagina of a tuberculous case. That they produce abscess of the liver has long been known, and that they work their way into the lung is now recognized. That the disease has so long been unrecognized and unstudied in this country, and that the principal literature on this subject has come until recently from Kartulis in Egypt, and perhaps Cunningham in India, has been due to the fact that climatic conditions in those countries produced more of it than among us. It is only, as it were, accidentally, that Osler had a case come to him.

The case to be reported is as follows:

Miss F., aged 25, family history excellent, unusually strong and well until August, 1890. She had, however, lost color for about a year previously, supposed to be due to taking care of her mother, who died with bronchial trouble.

She was somewhat debilitated at that time, but regained her flesh and strength some months later, but not her color. In August, 1890, she noticed a single solid, whitish discharge from rectum, like a white clot. Her bowels then became constipated, and after a month, occasional small discharges of bloody mucus were noticed, containing numerous white specks and streaks. These persisted despite the various remedies that were used. She had three or four discharges daily, mixed with more or less semi-solid or liquid fæces of a brown color. At one time after treatment began, in September, 1890, she was very constipated, not having an operation for eleven days. After that time, she noticed that the bowels did not seem to act naturally, whether constipated or loose. At intervals the quantity and number of blood-stained stools were lessened under treatment, although they never became quite normal. They were perceptibly fewer during the early summer months of 1891, especially so while at the sea-shore.

The last week of September, for a week or ten days the stools became more bloody, and she had as many as a dozen or fifteen daily for a few days. During September and October the stools became more offensive than usual, though they were noticeably so during her illness. This attack came on while she was in extra strength and weight, the result of the sea-shore vacation. In fact, she only became emaciated when the severity of the symptoms increased. No important loss of strength and weight had been noticed during the year she had been passing blood-stained fæces. The evacuations had been painless, and unaffected by food or drink. In fact, pain had not been a symptom, either in the epigastrium or other part of abdomen. There had been neither nausea, tenesmus or jaundice. During October tenderness was noticed in right iliac fossa, but there was no distension until October 23. On that day the bowels began to be somewhat distended and tympanitic, and the tenderness extended upward, nearer the liver, becoming more severe and producing a feeling as of a bunch under fingers.

This was the first time that there had been any swelling. The temperature was 101°, pulse 120. There was loss of appetite, drowsiness and some slight sweating. Fever was a new feature, but the pulse had run from 100 to 120 since September. Micturition became more frequent. Examination showed no uterine trouble. As a rule she slept well during her illness.

After she was confined to her bed, she was in the habit of lying on her back with knees drawn up a considerable part of the time, as a lateral position produced an inclination to evacuate the bowels. Diagnosis of dysentery from ulceration was early made, and injections of liquor bismuth, etc., were given, and bismuth by mouth, during the year she was under treatment before the amœbæ were discovered.

The marked intermissions in symptoms raised the hope that treatment had been successful. The violent attack in September again called attention to the dysentery, and diet and treatment were directed towards supplying the patient with food that would not irritate the bowels and with medicine that would stop the bloody stools. Peptonized milk was given as the only food for a week or two, of which she took about two quarts daily, then Valentine's meat-juice and egg-nogg were added. Opium and camphor pills were given after a short course of teaspoonful doses of castor oil. The oil appeared to relieve, but was abandoned because it was feared that instead of relieving the dysentery, it might be continuing it. As the bloody discharge continued, gallic acid was given, with the effect of diminishing the blood in the discharges. The rectal treatment consisted of injections of sulphate of zinc.

The febrile attack with tympanites, etc., October 23, with the extension of tenderness and the appearance of a hard place under the liver, led to a consultation with Dr. R. H. Fitz, of the Harvard Medical School, who made a diagnosis of "chronic, ulcerative colitis, acute paracolitis and probably amœbæ dysenteriæ," which he verified microscopically. In his report of the case he says: "The abdomen was slightly and symmetrically distended, tympanitic everywhere, except over a space as large as the palm of the hand, at the right of the navel, between the costal cartilages and the anterior superior iliac spine, extending nearly to the median line. The dull region was tense and tender, resistance gradually lessening toward the edge; there was neither elasticity nor a sense of fluctuation. There was slight tenderness in the hypogastrium just above the symphysis. The liver dulness was slightly increased; there was no tenderness in the hepatic region; the splenic dulness was somewhat increased.

"The rectal examination was negative. Two stools, seen at this time, were homogeneous, soft, pap-like in consistency; they were of a brown color, mixed with red from the presence of blood, and in one were clumps of reddish mucus, translucent, like sago grains.

"The fæces were examined microscopically, at intervals, during a period of several days, and amœbæ were always found. They appeared as round or slightly oval bodies, varying somewhat in size, but in general, with a diameter six or seven times that of a leucocyte. The periphery often appeared like a homogeneous, hyaline membrane, while the body of the amœbæ was composed of coarse, gray granules.

Within the body a nucleus was often to be seen, also vacuoles, and occasionally, one or more red blood corpuscles.

"The fæces were brought from a distance of several miles during cold weather, and the amœbæ were always motionless, even on the hot stage. In only one instance were pseudopods present, but they remained quiescent during a period of several minutes. The diagnosis of a paracolitis in this case was suggested by the acute, febrile attack connected with the limitation of the sudden and sensitive induration to the course of the ascending colon, the absence of a sharply defined edge, and the failure to appreciate the fluctuation or elasticity which usually accompany an encysted fluid near the abdominal wall."

Just here special attention is called to the problem presented to Dr. Fitz. The case was classified as one of dysentery, although there had been neither painful stools nor bowels during most of the sickness. An ulcerative cæcitis or colitis of malignant or tubercular character was suggested by both positive and negative symptoms. Suddenly a tense, tender, non-elastic, non-fluctuating bunch was found under the liver, accompanied by febrile symptoms. An abscess appeared imminent. What did it mean and what must be done? Dr. Maurice H. Richardson, Massachusetts General Hospital, was summoned to determine if anything surgical should be done. After two visits he was not positive, and asked that Dr. Fitz see the patient. In view of what the case proved to be, one can imagine what a blunder surgical interference would have been, and the brilliancy of the diagnosis which perhaps prevented even an exploratory incision.

High rectal enemata of dilute solutions of quinine (1 to 5,000) were recommended. These injections were given cold, morning and evening during November and December; a soft rubber rectal tube was used, which was inserted as far as possible, patient lying on her right side, hips elevated, gentle friction being employed along the colon. At first no change or improvement was noted, but after a time it was evident that the dysentery was better. The passages were less frequent, the necrosed tissue was less abundant and the amœbæ began to disappear from the stools, frequent microscopical examinations being made. Notwithstanding these improvements the marked anæmia persisted. Œdema appeared in one ankle, then after a time in the other.

Nausea and occasional vomiting of food and large quantities of mucus, with loss of appetite, probably from irritation in the colon, showed that the stomach was feeling the strain. Progressive loss of strength was apparent, and the outlook was discouraging. This was made more so by the exacerbations, which would prostrate her just when she seemed to be improving. It was feared this was due not only to the loss of blood she had sustained but, as was suggested, to the fact that the amœbæ were destroying the red blood corpuscles. Still she did gain, despite the weakness which was always present. She began to sit up, and the day before Christmas wrote a letter. Christmas day and the day following she did not feel very well, although there was nothing apparent more than there had been a number of times before. December 27 pneumonia set in, and she died early in the morning of December 28, during the week when la grippe invaded Boston, and to which she fell an easy victim. During the last month of her life, her abdomen continued tympanitic, but the bunch under her liver became smaller and tenderness almost disappeared.

The autopsy, as reported by Dr. Fitz, showed that for some 7 inches below the cæcum, the inner surface of the intestine was trabeculated and undermined, a lace-like covering and granular projections being present. The rest of the lining of the colon showed an irregular, lobulated thickening. The muscular coat was thickened and the canal diminished. The entire inner surface was of a dirty greenish-gray color. About the middle of the ascending colon, the mesocolon showed a localized dilatation and injection of the vessels. On microscopical examination of secretions from the ulcerated intestine no amœbæ were found.

Authorities state that the amœbæ probably reach the large intestine in the food and drink; that they exert no action on stomach or small intestines, but only when they reach the large intestines, where they find favorable conditions, namely: an alkaline material. If water contaminated by organic material is a source of this disease, how important a subject the purity of our water supply is. The clinical history of such a case is characterized by a variable, perhaps uncertain opening, marked intermissions and exacerbations of bloody stools, having in them what one learns to recognize as necrotic tissue of a grayish-brown color; Councilman reports one measuring 11 centimeters. Tenesmus is generally not a prominent feature. Anæmia is usually well marked.

The pronounced tendency to chronicity adds discouragements to the case. The diagnosis being made positive by the presence of the amœbæ in the stools, certain physical characters different from those seen in the stools of other forms of dysentery present themselves. Councilman says they are rather more numerous in the small gelatinous masses found in the fæces. Their number is generally proportionate to the severity of the lesions. The report referred to cites a fatal case, however, in which no amœbæ were found until after death, although there were extensive sloughs from cæcum to anus. Prognosis depends upon the quickness with which a correct diagnosis is made and the thoroughness of the treatment. Diagnosis having been established, the organisms must be destroyed. An important clinical fact is the undoubted curative value of simple cold water injections containing either quinine or boric acid. Eichberg, of Cincinnati, suggests that as warmth favors the multiplication of organisms of a low order, cold either destroys their vitality entirely, or suspends it sufficiently to enable the bowels to throw off the organisms.

The paper offered is principally a clinical picture of what was to the reader a very interesting and little known form of disease. It is presented by a general practitioner to general practitioners.

It is eminently proper to acknowledge indebtedness to the thorough work done at the Johns Hopkins Hospital, for much valuable information and literature regarding the subject.

Dr. Herrick remarked that it would be interesting to know how the amœba gets into the alimentary canal. Other elements are involved. Is it not true that the circulation of the abdominal organs is largely controlled by the liver. This organ, he thought, had a great deal to do with the disease. He attributed it to the use of too much amylaceous matter.

Dr. Didama thought the remarks of the last speaker not very pertinent to the subject under consideration, and requested that in the future the remarks be confined to the subject under consideration by the essayist.

Dr. Musser, of Philadelphia, thought we should be thankful to the essayist for his paper, because in it we have without doubt a positive addition to our knowledge regarding the pathology and physiology of occurrences in the alimentary tract. He had been much interested by the narration by the essayist of a case of this kind occurring in the North. This form of dysentery was formerly supposed to be of tropical origin only. But since the first observation of Dr. Councilman, who read a paper before the American Association of Physicians, reporting a case which occurred in Canada, the possibility of its occurrence in northern regions must be conceded. It is doubtless more common than is supposed. The speaker then reported a case which favored the view that the disease is of tropical origin, or at least more likely to occur in persons who have resided in the tropics. The case was one of a woman past middle life who was born in Cuba, but a resident of this country for fifteen years. She had never had any bowel trouble except in early life. She had an attack of acute dysentery, as we are accustomed to recognize it in this climate, all the manifestations differing in symptomatology in a large measure from those of ordinary dysentery. There was fever, pain and the characteristic dysenteric stools. With Dr. Guiteras, the stools were examined by the speaker. They were able to find in the masses to which attention has been called by Osler and Councilman, the living organisms, moving with all the characteristics of a living amœba. The clinical history of the case was otherwise that of an ordinary case of dysentery.

He did not resort in the treatment to the injection of quinine, which is probably the best remedy, particularly in the chronic form of the disease. He had referred to the case, he said, because in the first place it was another case occurring in the North, and because it presented the ordinary symptoms of dysentery, and finally because it was promptly relieved by saline cathartics and other measures ordinarily resorted to.

The next paper was entitled:

RETAINED FECES.

BY W. S. CHRISTOPHER, M.D.,
PROFESSOR OF DISEASES OF CHILDREN, CHICAGO POLICLINIC.

The French, perhaps, more than any other people, have studied the effects of retained feces. Stercoræmia is a common word in their writings. Bouchardat particularly has investigated this subject, and has studied its relations to impairment of hepatic functions. It is not, however, my purpose to review the literature, but to call attention briefly to a few features of the subject, with a view to opening a discussion.

From experience gained by the frequent use of lavage of the bowels, I am almost ready to believe that a greater or less retention of old feces is a normal condition. At least I have frequently washed out from bowels that were apparently normal, old scybalous masses, which could hardly be charged with either local or remote effects.

Feces stranded in the cæcum may do no harm, but they are a constant menace. Sooner or later they may set up typhlitis, a disease which I believe exists as an entity notwithstanding recent pathological reports and the somewhat strongly expressed views of some modern abdominal surgeons. Typhlitis once inaugurated, a long series of disasters may follow, to which the somewhat indefinite name, right iliac disease, might with propriety be given. I can heartily agree with Jules Simon that the great danger of typhlitis is appendicitis, but cannot agree with the view which is so commonly held at present, that the initial factor in right iliac disease is always appendicitis. The mechanism by which appendicitis and the subsequent peritonitis are produced is not clear, but some recent observations by Adenot, of Lyons, would indicate that the bacterium coli commune is to blame. This ordinarily innocent inhabitant of the bowel, seems to acquire virulence in the presence of catarrhal conditions of the bowel, and then becomes capable of giving rise to appendicular and peritonitic disease, and even the so-called perityphlitic abscess.

Impaction of feces so extensive as to produce actual obstruction of the bowel is certainly uncommon, but localized impactions giving rise to localized peritonitis, and even peri-colonic abscess, are not rare. I have recently had a patient with serious stomach disorder secondary to an obstructive heart lesion, who developed in the region of the spleen, a most intense localized peritonitis. Lavage of the bowel was rewarded with the removal of a large mass of scybalous feces, and great relief to the localized tenderness. Some relief was also afforded to the severe vomiting present.

But the local systoms resulting from retained feces are not the most interesting or the most important.

Retained feces usually putrefy and give constantly to the blood stream a supply of poisons of the most varied type. When this supply is small, the liver changes the poisons into innocuous substances and no harm results. But when the supply is large, or the liver incompetent to perform its function in this direction, these noxious substances gain entrance to the general circulation and produce the most varied symptoms. We have then the stercoræmia of the French.

Headache is a common symptom resulting from this condition, and the old fashioned and much maligned biliousness is another. Fever often occurs, and to this fact is due the wide spread belief among the laity that castor oil is good for fever. Skin eruptions are frequent, and are only permanently cured when the source of the poison producing them, is cut off. Sir Andrew Clark has expressed his belief that the best remedy for anæmia is a laxative. This bold statement, often true, serves to call attention to the undoubted fact that stercoræmia is a frequent cause of anæmia. A clinical picture which I have often seen, is the following: First, constipation, then putrefaction of the retained feces, then stercoræmia, then anæmia, then as a result of the impoverished blood, incomplete nourishment of the various organs of the body, then defective secretion, particularly defective gastric secretion, then dyspepsia, then improper digestion and assimilation of food, then increased anæmia. Thus a vicious circle is formed, which tends constantly to increase the pathological conditions present. Certainly iron can be of but little service under such circumstances. To effect a cure the retained feces must be removed, before attention need be directed toward the other conditions.

The following case, when first seen was suspected by my assistant to be one of tubercular meningitis:

Mary S., age 7 months, had scarlatina four weeks ago, and had diarrhœa while the rash was on her. Now she does not take the breast, and is feverish at times. Is sleepless, and has been given soothing syrup. Rectal temperature 103. Pupils react very slightly and are even. Abdomen somewhat retracted, bowels constipated. Tâche rouge appears and disappears slowly. There are some rose colored spots on the abdomen which do not react like typhoid spots. Urine dark and of bad odor. There is a whitish film on the alveolar process. Expression is stupid, has a whining cry, and keeps her finger in her mouth. Believing that the case was only one of constipation, I gave the baby three one-grain doses of calomel, with the result of removing from the bowel a large mass of putrid feces. This was accompanied with a great amelioration of the symptoms, and a few days more attention to the bowels in the same direction, completely cured the child.

It would be tiresome to attempt to enumerate all the symptoms which can be produced by retained feces. It is probable however, that any symptom which can have its origin in an action of the central nervous system can be initiated by the poisons produced by retained feces.

I shall content myself with relating two cases which are of more than ordinary interest.

Mrs. L., age 60, is a very obese woman, weighing ordinarily 210 pounds. When I first saw her last October, she had been confined to her bed for two months. Partly owing to her great weight, and partly apparently from some degree of paresis she was quite unable to turn herself in bed. During the preceding two months she had had occasional irregular febrile periods. At the time I first saw her she was vomiting persistently, being utterly unable to retain the milk and lime water which was being fed to her. In addition there was complete incontinence of urine and feces, which passed from her without her knowledge. Her pulse was weak and her general condition bad. The outlook was very gloomy. The diagnosis lay between structural disease of the spinal cord and constipation. For the latter diagnosis, there was no positive evidence whatever. Her obesity rendered it impossible to determine the condition of the colon. The diagnosis of possible constipation was made, however, because all the symptoms present could be explained by

such a condition and any other diagnosis meant abandonment of the patient to her fate. She was given copious enemas of water, which brought away large quantities of hard, lumpy, feces, covered with mucus and some pus, and having a very putrid odor. These lumps continued to come away with the enemas for two weeks. Improvement quickly set in and in about a month she was well. Last week I saw the old lady, perfectly well, and unusually active for one of her age and weight.

The next case is one which occurred in the practice of Dr. Harold Moyer of Chicago. It is the most remarkable instance of the evil results which can follow from retention of feces, which has ever come to my notice. I quote in full Dr. Moyer's report of the case, as published in *The Alienist and Neurologist* for January, 1890.

"July 17, 1887, I was summoned to an adjoining city to see Mrs. G., in consultation. The attending physician furnished me with the following account: Father of patient living and well; mother died of cancer of the uterus. No trace of insanity in the family, or neurotic heredity of any kind. Her health previous to the present difficulty had been fair, an occasional cough, with inflammation of the pharynx, being her only illness. Menstruation appeared at fourteen, and was always normally performed. Married at twenty-three, and at twenty-five, had a premature labor, this accident not being followed by any disturbance of the general health. Present illness began about eight months ago, and was marked by an increasing general debility, loss of appetite, decrease in weight, and obstinate constipation. The symptoms did not point to a change in any particular organ. Six months later, had sudden attacks of fainting, occurring at irregular intervals. These attacks would begin with pain in the left hypochondrium and a sense of suffocation. Within the last six months, tenderness on pressure has appeared in this region, and the attacks have become more frequent, and are accompanied by vomiting. During this time she had no febrile reaction, but was nervous, excitable and affected with morbid fears. This was substantially her condition until three months before she came under my observation, when she began to show positive signs of insanity, was restless, sleepless and incoherent, with confusional hallucinations and non-systematic delusions of a depressed and melancholy character.

Examination of the patient shows the muscles and fatty tissues wasted to the last degree. The flexor tendons of the thighs are contracted, so that the legs cannot be extended. The skin is of a dirty brown color, and covered with branny scales. Eyeballs prominent, pupils react normally. Ophthalmoscopic appearance of fundus normal. The heart, lungs, kidneys and sexual organs were carefully investigated, and nothing abnormal noted. A line of superficial dulness could be made out, extending transversely across the abdomen, on a level with the umbilicus, and a lobulated mass could be felt in the left inguinal region, but it could not be distinctly outlined. The temperature was normal. Pulse weak and variable, from 120 to 140 per minute. The mental symptoms were substantially those which were described as existing for the past three months.

A diagnosis of an exhaustional confusional form of insanity, proceeding from a dilated and over-filled colon, was made. Large rectal injections were ordered, containing in each pint of water two ounces of listerine and one drachm of common salt. Tonics were also ordered with cod-liver oil inunction, massage and general faradization.

The subsequent history was furnished by the attending physician.

July 19. Condition unchanged, absolutely refused food. Insisted that her brother had been recently killed.

July 20. First injection given, consisting of about two pints. The tube was passed well beyond the sigmoid flexure. In about an hour the injection came away and with it a considerable amount of fecal matter. Upon withdrawing the tube, its distal end was found to be coated with dark, waxy, adhesive fecal matter, entirely unlike that which came away. After the injection the patient passed into a quiet sleep, from which she was awakened after about two hours, and called for food for the first time in many weeks.

July 21. Marked improvement; pulse 100. No fecal masses came away with to-day's injection, but the tube is still coated as at first, showing that a mass is still retained. Mind perfectly clear and tranquil.

July 30. Continued improvement. Since beginning the treatment ten rectal injections have been given. Occasionally a dark, hardened fecal mass comes away.

August 14. Able to be out of bed, but walks with great difficulty, owing to the muscular wasting. Mind perfectly clear, but retains only an indistinct recollection of the time of her illness. For the past two weeks her bowels have acted without cathartics, and her appetite is excellent.

Nov. 20. No longer suffers from constipation, and her health is better than it was before her illness."

It is not an easy matter to empty the colon of feces which have been long retained. Active cathartics will not suffice. Indeed their prolonged use, or rather abuse, is a most potent factor in the causation of the condition. Salines in moderate quantities will sometimes succeed in washing out the retained masses, but after the abuse of purgatives, a sedative is often the most effectual in clearing the bowels. A most useful one under such circumstances is a pill containing iron and belladonna. I have found the bowels to act after a few days' rest, when croton oil had failed to produce an evacuation. But the most satisfactory plan for relieving the colon of retained feces, is the use of lavage. Copious injections of warm water will dislodge masses of feces that cannot be removed in any other way. It should not be forgotten that several injections may have to be given before any old feces will be brought away, and that it often takes daily injections for several weeks to completely empty the bowel, and entirely remove all the old hardened, dark feces.

The following conclusions are submitted:

1. Long continued partial retention of feces is common.

2. Such retention is usually harmless.

3. Retained feces undergoing putrefaction may, at any time, acquire poisonous properties.

4. Retained feces may produce either local or constitutional symptoms.

5. The principal local conditions produced by retained feces are typhlitis, appendicitis, and peritonitis, either localized or general.

6. Retained feces, through the poisons produced in them, are capable of causing any constitutional symptoms which can be manifested through the agency of the central nervous system.

7. Among the toxic effects of such stercoræmia may be mentioned fever, convulsions, coma, insomnia, headache, neuralgia, vertigo, anæmia, diarrhœa, constipation, incontinence of urine and feces, insanity, etc.

Dr. N. S. Davis, Jr. of Chicago, remarked that there are in addition to the cases referred to by the essayist, other cases in which there is a moderate amount of retention of feces. There are cases in which there are regular movements of the bowel, but not thorough evacuation. The symptoms of more or less distressing character are promptly relieved by free evacuation. The symptoms are most frequently some pain in the back; sometimes a slight, but usually a considerable degree of anæmia. These cases are frequent. The daily movement is rather a spilling over of the bowels, than a movement. Only a comparatively small amount is evacuated, and not enough to relieve the retention which exists. These cases can be relieved by enemas.

Dr. Herrick spoke of the retention of feces as due to disorders of intestinal secretion.

Dr. Fuller, of Massachusetts, reported at some length the case of a woman whom he had relieved seven times of a fecal impaction, following childbirth, in whom the autopsy revealed several regions of intestine in which the walls were so thickened, as to narrow the calibre to so great an extent that the finger could not be made to pass through.

Dr. Newcomb, of New York, referred to two cases similar to those which had been described. One was that of a man brought into the hospital in a moribund condition. The autopsy revealed no lesion of serious nature except that

the entire colon packed full of hardened feces. The speaker had also made some investigations in regard to the anæmia which is relieved by laxatives. He had been engaged in the investigation of the blood of his patients whom he was treating with the chalybeate pill. He concluded to test the efficacy of laxative treatment without the administration of iron. He found that up to a certain point the patients seemed to do just as well as they did under the Blaud's pills, but beyond that the iron was required. He had concluded therefore, that, as Alonzo Clarke has asserted, the most important factor in the production of anæmia is the imperfect action of the bowels.

Dr. Greenlee, of Kentucky, reported a case of impaction of feces in the sigmoid flexure.

Dr. J. M. Anders, of Philadelphia, agreed with the essayist that typhlitis is an entity, and as well in regard to the stercoræmia of the French. He believed also that the fever is sometimes attributable to this cause. In a certain class of cases, however, another explanation must be had. In many of these cases, no doubt, the retained fecal matter acts as a mechanical irritant to the coats of the intestine, setting up a catarrhal condition. This condition is frequently not followed by diarrhœa, but tends to increase the constipation. Owing to this condition we have absorption markedly interfered with. In many of these cases, indeed, I have no doubt that the final condition, fecal impaction, stands in the relation of cause rather than that of effect.

Dr. S. Solis-Cohen, of Philadelphia, said that the paper was of interest to him because he had seen several cases similar in character to those reported by Dr. Christopher. One remarkable case occurred occurred in connection with laryngeal ulceration. The early symptoms pointed somewhat to typhoid, but the later course of the case was such that this disease could not be diagnosticated. It was decided to be a case of stercoræmia and was promptly relieved. In another case he was summoned in great haste to a patient of a homœopath who was said to be dying of "pneumonia." Physical examination showed entire absence of pneumonia. There was rapid breathing, great depression, temperature 102° or 103°. Impaction of feces was discovered and treatment promptly dissipated the supposed threatening pneumonia.

In the clinic of Professor Bartholow, of Philadelphia, several women presented themselves who feared that they had committed the unpardonable sin. Professor Bartholow promptly diagnosticated the cases as those of obstinate constipation. Gross, the speaker said, has given us the term, "incontinence of retention," and so we might say, the diarrhœa of constipation. Among the other blunders of diagnosis which had come under his observation, the speaker mentioned that in which confusion had arisen between fecal impaction with its attendant pain and renal colic, in which irrigation of the bowel promptly dissipated the symptoms.

Dr. Christopher, in concluding the discussion, remarked that he also had seen confusion between fæcal impaction and renal colic. Not long ago a patient had presented himself who supposed that he was suffering from the passage of a gall-stone. Being always inclined to test the possibility of its being due to fæcal impaction, he ordered copious injections of hot water. The pain was much ameliorated by the enemata, but after a few days the patient again presented himself carrying with him a renal calculus which he had passed. Yet an important lesson was found in the fact that the hot water injections to so great an extent relieved the pain of the renal colic.

The speaker thought that if we would give up the treatment of diarrhœas with bismuth and opium, and treat it like our fathers did fifty years, by the administration of a copious dose of calomel, our results would be better. I am convinced, he said, that many of the diseases which go by the name of "itis" at their termination are due to autointoxication from retained fæces.

(To be continued.)

SCARLATINA.—Lauder Brunton speaks favorably of arsenic, when the tongue remains red and irritable during convalescence. Carbonate of ammonium in frequent doses is greatly recommended.'

Ringer recommends chlorine-water for sloughing throat; arsenic and nitric acid for persisting red tongue in convalescence; cold compresses to the throat throughout; ice to be sucked; gray powder for inflamed tonsils; packing throughout, especially on retrocession of rash; veratrum for convulsions.—*Times and Register.*

NOTES ON SOME INTERESTING CASES AT THE NEW YORK MOTHERS' HOME MATERNITY HOSPITAL.

BY T. J. McGILLICUDDY, M.D.,
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In May, 1888, the New York Mothers' Home Maternity Hospital began its work in this city. It is located at 531 East 86th St., in a large double house containing thirty rooms. This building has been completely renovated and very particular attention was given to the plumbing, it being entirely renewed. The institution also includes within its grounds 525 E. 86th St., a three story frame house of ten large rooms. These buildings, however, are simply for temporary use, as the erection of a wing to the large new hospital has been started; the size of this wing is 65 by 140 feet, and it will be five stories high. The class of patients received are as a rule the poor and unfortunate, and no discrimination is made in regard to religion, color or nationality. Extreme cleanliness is the rule throughout the whole institution, an important part of which is the laundry, it being in constant requisition, and all the clothing is boiled in an antiseptic solution. The pregnant, parturient and puerpural women are kept separate. There is a special room for delivery on the same floor with the lying-in wards. On another floor a special separate room for any case of fever that might possibly develop, but it has never been necessary to use it for that purpose. There is also one room set apart for any serious operative case, and there are also rooms for private patients. The food supplied is wholesome and plentiful, and suitable to the condition of the inmates.

Every patient on entering is given a general bath and has her clothing changed. Her urine is examined, her condition noted, and she is prescribed for if any remedy is indicated. In the delivery room during attendance on the parturient woman all the usual antiseptic precautions are taken, the hands being frequently dipped in a warm solution of creolin. The discharges are received into a pad of muslin about two and a half feet square and rendered thoroughly aseptic. After labor in cases where it is indicated the vagina is douched with simple warm water that has been boiled, or warm water with creolin added. This solution is also used for small lacerations or abrasions of the vagina.

Lacerations of the perineum if at all extensive are sewn immediately. The binder used is of aseptic muslin doubled, about three feet in length and fourteen inches wide, rather thick and soft, thus coaptating smoothly to the patient's shape, and a similarly shaped piece is folded and placed against the vulvæ. This pad being large and thick absorbs the lochial discharge and is changed frequently. Ergot is very seldom used and then only when good contractions of the uterus cannot otherwise be obtained. The stronger patients are permitted to sit up for a short time on the sixth day but they remain most of the time in bed for ten days. Every patient is expected to nurse her own child unless there is some contra-indication. Several of those admitted were either tuberculous or syphilitic, and had been refused admittance to other institutions. Others were addicted to spiritus frumenti or had suffered from insufficient food and hard work.

The infants have a large bath room, each one having a separate bath tub, and a large drawer containing its own towels, soap, powder, etc. In cases of ophthalmia neonatorem, the treatment consists of applications of a two per cent. solution of nitrate of silver, frequent cleansing, and if the inflammation is very acute, iced applications are made.

Since the opening of the hospital in the city to May 1, 1892, there have been five hundred patients delivered with but two deaths from puerperal disease, and when we consider their condition on entering, most of them being homeless or from tenement districts, having been without fresh air or wholesome food and often in a wretched physical state, this record is indeed very good.

One patient was taken ill in February, 1890, with the prevailing catarrhal influenza or la grippe. She was far advanced in phthisis, and died from pneumonia nearly a month after her confinement. Three of the patients suffered with acute croupous pneumonia shortly before and during labor, but it in no way interfered with the delivery or the convalescence. Having been the only visiting surgeon for most of the time since the hospital was opened and having seen all these cases, I think that a few notes on some of them may be of interest.

Case 1.—Funis Presentation.—This patient was a tall, unhealthy looking primipara, æt 24. The head presented with the cord which had several inches prolapsed, and was found to be pulsating irregularly. A catheter and tape was first employed for its reposition, but the tape constricted the cord to such a degree that the method was condemned as dangerous, and the patient was placed in the knee and chest position as advocated by Dr. Thomas, and the cord replaced by the fingers. The forceps was then resorted to but the child was dead when delivered. There was also a second case of funis presentation occurring in a still birth at seven months.

Case 2.—Contracted Pelvis.—Æt 19, primipara, patient is very lame, there being a difference of two and three quarters inches between the length of the lower limbs. The left leg is well developed, while the right is stiff and small, the result of an unreduced dislocation of the head of the femur when she was a child. Pelvis at the brim D shaped, the abridgement being on the right side and the narrowness in the transverse diameter. The child's head in descending passed to the left curving around the obstruction. The contractions of the uterus were exceedingly strong, and the head would strike with each pain so forcibly against the obstruction that I believed that the safety of the child demanded immediate delivery, and applying my axis traction forceps it was easily performed. The child was apparently all right but after twenty-four hours a large hæmatoma was found under the scalp on the right side from rupture of the temporal artery caused by the pounding of the head against the deformed brim of the pelvis. The child died in thirty-six hours.

Case 3.—Contracted Pelvis.—Æt 28. On the entrance of this patient she brought a note from a physician in this city in which he said craniotomy would probably be necessary for the delivery. As far as I could learn from the patient and her friends she had been in labor for six days, most of the time with a midwife, three physicians had been consulted and two of them after an examination had come to the conclusion that craniotomy would have to be resorted to. The patient was in fair condition and on making an examination, I found some contraction of the conjugata vera.

The head wedged in a transverse position, I applied my forceps with one blade over the face and the other over the occiput, drew it down into the cavity of the pelvis and then rotating the occiput forward, reapplied the forceps to the sides of the child's head, and the delivery was easily accomplished. The sides of the parietal bone where it came in contact with the sacrum was marked by an abrasion which afterward sloughed. Both mother and child did well.

Case 4.—Congenital Dislocation at the Knee.—Æt 24. Primipara. In slow and dry labor for twenty-eight hours. Breech presentation with limbs reflected on the body. When the cervix was thoroughly dilated, the labor did not advance as it should, and after each pain the breech would disappear into the uterus as if some obstruction was present and forced it back. The nurse made the remark "that something is keeping the child back." The accompanying photograph taken the next day shows the dislocation and position of the leg which during and after the delivery was approximated tightly to the front of the body. The dislocation reduced itself naturally and the knee became all right.

FIG. 1.

Puerperal nephritis is of so frequent occurrence and of so much importance that it is hoped that the following will be of some interest to the reader: Thirteen cases of puerperal nephritis were noted, and there were seven cases of puerperal eclampsia, one of them being fatal. The treatment of puerperal eclampsia where prophylaxis of the disease has not been attempted, should consist of *washing out* and purifying the blood, digestive and genito-urinary tracts, removing the renal congestion, quieting the nervous system and renewing the supply of normal healthy blood by the ingestion of a proper diet both liquid and solid, and mental as well as physical rest along with plenty of fresh air.

Case 5.—Puerperal Eclampsia. Twins. Very Pendulous Abdomen.—Æt. 29, primipara; very thin and delicate, weighing about 100 pounds, has an extremely pendulous abdomen. Labor begun at 9 A.M.; at 3 P.M. the first stage was completed; at 7 P.M. the first child was delivered by the breech. It weighed about 8 pounds; when the breech began to appear at the vulvar opening, there came quite a long delay which demanded interference, the delivery was quick and easy, but the child was dead. The second child was also a breech presentation. After the delivery of the first, the pains ceased for five hours and as there did not seem to be any prospect of them starting again the membranes surrounding the second child were ruptured, a knee seized and extraction performed readily; the child was in a state of asphyxia, but it recovered. This one was more frail than the first, which did not live. Thirteen days after delivery the mother was seized with a severe eclamptic convulsion but there was but one single attack. There was but a slight trace of albumin in the urine and no œdema.

Case 6.—Eclampsia.—Clara, æt. 38; primipara; extremely anæmic. She had but one convulsion shortly before delivery, which was instrumental; child lived. She continued delirious for a long time; her perineum was lacerated, but her physical condition was so poor, being syphilitic, that it did not unite. Her urine was drawn by catheter and found to contain 40 per cent. bulk albumin. She was purged by magnesia sulphate, and given large quantities of Maine Highland water to drink. The urine increased in quantity; its specific gravity lessened, and she left the hospital without a trace of albumin in her urine. Did not return for secondary perineal operation.

Case 7.—Eclampsia.—Clementina, æt. 18; primipara. This was the only fatal case of eclampsia. She came in two days

before delivery, suffering with alcoholism and nephritis. She had been a hard whisky drinker. There were two convulsions before delivery, and eight severe ones after. She continued in a state of stupor, alternating with delirium, until she finally died of exhaustion. Labor was induced by Barnes' dilators, and when the cervix was well spread I applied my axis traction forceps and a healthy living child was extracted.

Case 8.—Eclampsia.—Marie, æt. 40; an emaciated primipara; legs œdematous; severe headache; urine 30 per cent. bulk albumin. Taken with an eclamptic convulsion about two hours after delivery. They recurred four times. Potassium bromide and chloral hydrate each 15 grains were given. Hot air bath. Two ounces of magnesia sulphate in glycerine and water were given by rectal injection. Highland water, for its absorbent and diuretic action, was given in large quantities. She was also put on a milk diet. Recovery gradual but complete.

Case 9.—Eclampsia.—Emily, æt. 18; primipara; legs very œdematous; has severe headaches and black motes floating before her eyes. Urinates frequently, it is a very dark amber and heavily loaded with albumin. Appetite poor, tongue natural. Has taken one drachm of sulphate of magnesia for the past few days, once daily. This has reduced the œdema somewhat and causes two passages daily. Has been constipated; after examining her on her return to the ward for waiting women she had a convulsion, her first. She was then given bromide and chloral, of each 15 grains. First convulsion at 12:30, noon; second at 1:40 P.M., and third at 2:40. Barnes' bags introduced and labor brought on; delivery instrumental. She was given hot baths and placed on a milk diet and Highland water, and made a rapid recovery; child healthy.

Case 10.—Eclampsia and Amaurosis.—Delphine, æt. 16; primipara. Shortly after entrance at 3 A.M., was taken in eclamptic convulsions. She had four attacks before four A.M., when I saw her and delivered instrumentally. She had been given bromide and chloral, 15 grains each, but in spite of that and hot baths had attacks every hour until eight A.M., when a hypodermic of morphia ⅓ grain was given. She then began to sleep and perspire somewhat. At eight P.M., she had three very severe attacks, she was then given two ounces of magnesia sulphate by rectal injection, which caused a good evacuation, although she had been taking laxatives, and there were no more convulsions. The giving of sulphate of magnesia by injection is a very useful procedure, especially in cases of coma, when they cannot swallow. The patient was plump and strong. Her urine was drawn by catheter and found to contain 50 volumetric per cent. albumin. After coming out of the convulsion she was blind and remained so for two days, when her sight was gradually restored. She was put on Highland water, and the first two days drank over a gallon. The albumin persisted for a few days, and then completely disappeared. Beef solution was given for the hydræmic state of the blood, and the Highland water for its diuretic property and to assist the defective elimination of urea and for its good effect on the circulation.

Case 11.—Eclampsia.—Minnie, æt. 23. Admitted to the delivery room of the hospital with cervix well dilated. Normal presentation. In about half an hour she was noticed to be in that nervous state that precedes the eclamptic seizure, the bag of water was ruptured and in a few moments after some strong pains she was delivered of a healthy infant. The delivery took place at 12 M. She then slept until 3 P.M., when she had an elamptic seizure of considerable violence; before 8 P.M. she had five attacks. Urine 10 volumetric per cent. albumin.

Treatment.—When the nervous symptoms were noted she was given ten grains each of potassium bromide and chloral hydrate, which caused her to sleep for nearly three hours. The eclamptic seizure was preceded by an attack of vomiting. After the attack she was given a rectal injection of magnesia sulphate in a small quantity of water. The bowels were well evacuated, and the urine drawn by catheter. She was placed on Highland water in large quantities, and after a time her splitting headache and nervous twitching disappeared and the urine became normal.

Case 12.—Christine, æt. 23; primipara; acute puerperal nephritis. For about three weeks before labor limbs œdematous, which extended above the abdomen. Has had very severe headaches; urine on examination 50 volumetric per cent. albumin. The evening before labor came on, was in a nervous state, threatening eclampsia; she was given bromide and chloral, 15 grains each, but did not sleep; labor pains started at 4 A.M., and at 9 A.M. she was delivered of a healthy infant, without convulsions. On the second day after delivery she had severe abdominal pains, probably due to gaseous distension, which turpentine stupes relieved; her urine was then examined and had 33 per cent. bulk albumin. On the third day after delivery she had considerable diarrhœa.

Treatment.—Magnesia sulphate and Highland water. She states that when she takes the water, the pain in the abdomen and back is relieved. The pulse kept at 160, and temperature ranged from 102 to 103½. Lochia normal. Both mother and child did well.

Fig. 2 and 3 are from photographs of the front and back of the left hand of a child two days old; it was perfect in all other respects. The thumb was of normal size, but the fingers were without either bone or cartilage. The mother gave a history to the nurse of a maternal impression.

FIG. 2.

FIG. 3.

Case 12.—Twins; patient æt. 36; v-para; labor began at 6 P.M.; at 3 A.M. was delivered manually of the first child by the breech; the delivery was immediately followed by a placenta, which apparently belonged to the first child. The pains continued very strong and the second child was very soon delivered by vertex presentation, the body being extracted manually. This child was found asphyxiated, but under artificial respiration, counter irritation, etc., it was soon crying loudly; after the second child's cord was cut it was found to belong to expelled placenta. The other placenta was removed manually. In the first hundred cases there were four cases of twins and two of these labors were primiparous.

No. of cases, 4; both males, 2; both females, 2; one of each, 0. Of the last pair, one child was dead and macerated, the other only lived two days. In two cases the placenta was double and in the other two it was single, but all of them had two amniotic cavities. There were no cases of mastitis in the hospital and the application of the breast binder is not used as a routine measure.

There were two cases of spurious pregnancy, both detected on examination immediately after admission. There was one case of induced labor at eight months for puerperal eclampsia, both mother and child did well. There was also one case of antipartum hæmorrhage in a primipara aged 25, due to shortness of the cord; quick labor, child dead. There were three (3) cases of placenta previa marginalis; in none of them was either mother or child lost, and in none was the hæmorrhage very severe. In the last hundred cases there were but five applications of the forceps. It was applied twenty-eight times.

Podalic version was performed six times. There were four cases of face presentation; two of them were delivered by natural efforts, and two by the forceps; all the children lived. The youngest patient was 13 years old, there was another not quite 15. The labors of both were normal. There were four cases of footling presentation. No cases of postpartum hæmorrhage that could not easily be controlled.

There was one case of cephalhæmatoma, which enlarged considerably every time the child cried. The labor was easy and the os not rigid. The cranial bones were fragile and the fontanelles large. There were no cases of transverse presentation.

776 Madison Ave.

ON April 26, 1892, Professor James Tyson presented his resignation as Dean of the Medical Faculty, University of Pennsylvania, to take place with the termination of the business incident to the session of 1891-2.

PULMONARY CONSUMPTION:—ITS DIETETIC AND REGEMINAL MANAGEMENT.

Read by title in Practice of Medicine, at the Forty third Annual Meeting of the American Medical Association, held in Detroit, Mich., June, 1892.

BY EDWARD F. WELLS, M.D.,
OF CHICAGO.

Pulmonary consumption, the greatest enemy of mankind, is not an incurable disease. However, if the unfortunate subject of this disease is to be given an opportunity to escape the fate of the majority he must be surrounded by favorable conditions and must submit to certain necessary rules and regulations. I deem it an essential preliminary to success that there should be a happy combination of interests and hopes between patient and physician. The patient should be candidly informed of the nature of his malady; of its varied and tedious course; of its leading symptoms and complications; of its dangerous character; of the possibility of a cure and of the necessity of his exercising to the utmost his powers of patience, hope and confidence. On the other hand the physician must have a wide, varied and exact knowledge of medicine in general and of phthisis in particular; he must know and believe that the disease is curable; he must be kind, considerate, resourceful, hopeful and enthusiastic and, above all other qualities, he must be able to transfer his convictions, enthusiasm, and hopefulness to his patient, That this mutual confidence may be obtained and retained, week after week, month after month and year after year, until at last the victory is won, or defeat has been suffered only after every point has been stubbornly contested, requires a most profound knowledge of human nature and the highest qualities of the physician.

One of the most striking features of consumption is the progressive loss of body weight. In the presence of advancing local affection this is so constant that it affords a very accurate index of the progress of the case. Experience has abundantly proven that in a great many cases it is possible to stay the waste of tissues and even to cause the patient to gain in weight by giving careful attention to the diet, and that under these circumstances the pulmonary trouble is held in abeyance and the local lesions have a tendency to heal. This being the case it is evident that the subject of feeding our tuberculous patients is one of prime importance and worthy of the most careful consideration.

Anorexia and defective powers of assimilation are present in those cases in which the stomach and intestines, including their adnexia, are affected by organic disease. Loss of appetite is also a prominent feature in many cases during the height of a febrile attack, and in a certain proportion of patients without any obvious cause. However the rule is, especially in the earlier part of the attack, that the patient has either a good appetite, with moderate capabilities of assimilation, or he can receive, digest and assimilate liberal quantities of food, although he may have no desire for it—there being a state of apathy rather than one of disinclination. It is in this last and largest class that we are able to utilize our knowledge of dietetics to the greatest advantage, and that this paper may not be unduly extended my remarks are confined, in the main, to this class of cases.

Foods which contain nourishment in the most concentrated form should constitute the basis of our dietetic management. In order, however, that the best results may be attained these must be accompanied by properly selected adjuvants, correctives and —padding. By the last term I mean certain bulky articles of food having but little nutritive value, but which are necessary for the greatest digestive and assimilative activity. For many years I have discussed this subject very freely with my patients, inquiring into their preferences and sensations and obtaining their opinions and estimates, and the following diet table is the result of my experience. In practice it is suitably modified to meet the surroundings and other exigencies of the individual case for which it is prescribed:

MENU.

On Rising, 6 A.M.

Hot milk and Vichy. Hot meat broth.
Milk tea, tea made with milk.

Breakfast, 7 A. M.

Rare steak or loin chops. Mutton chops with fat.
Bacon or ham, with fat.
Eggs.
Potatoes, Saratoga chips. Fried mush.
Toast, with cream or butter,
Oatmeal, wheaten grits or rice, with cream.
Fruit.
Coffee or coca, made with rich milk.

Lunch 10 A. M.

Milk. Egg nogg. Meat broth.
Stale bread. Zweiback.

Dinner, 12:30 P. M.

Beef, mutton or chicken broth. Oyster or turtle soup.
Raw oysters. Raw clams. Fish.
Poultry. Roast beef or mutton. Game.
Potatoes. Cauliflower. Green peas. Tomatoes.
Celery. Pickles.
Asparagus. Lettuce. Spinach.
Stale bread. Graham bread. Corn bread.
Baked apples with cream. Ripe fruits.
Custard pudding. Pie. Cake.
Milk. Milk coffee.

Lunch. 3:30 P. M.

Milk. Koumyss. Clabber
Beef tea. Thick soup. Meat broth.
Ham sandwich.

Supper. 6:30 P. M.

Thick meat or fish soup.
Raw oysters. Cold meats.
Stale bread. Crackers. Graham bread.
Meat jellies. Neufchatel or Cottage Cheese. Fruit jellies.
Fruit. Ice cream. Cakes.
Milk coffee. Milk tea. Egg nogg.

Lunch. 9:30 P. M.

Hot milk. Beef tea. Meat broth.

To this list may be added such other foods and drinks that the appetite craves and are found to agree. Any article of diet which the experience of the patient has shown to be detrimental is to be omitted.

Food should be taken in as large quantity as possible. At each lunch from a half-pint to a pint of liquids should be taken, and at each of the three principal meals an equal quantity of milk, or of coffee, tea or cocoa, made of rich milk and cream, should be ingested. There is no objection to changing the dinner hour to 6:30 P. M., and taking a midday luncheon equivalent to the supper as prescribed. Meals should be never hurriedly taken and should be always accompanied by cheerful conversation. Eating should be made one of the principal objects of the patient's life.

The diet should be varied to meet special indications or the patient's desires. If there is little or no fever, and if starch, sugar and fats are well borne, foods containing these principles in abundance should be freely employed. If there is much fever, or if there is apathy or antipathy toward eating the diet should be composed, mainly, of animal foods and very concentrated nourishment, with fresh fruits and vegetables.

If there is a tendency toward flatulent distention of the stomach or bowels after eating, bread and other farinaceous articles of food should be taken sparingly. If the bowels become constipated, fruits, coarse vegetables, corn or graham bread should be largely eaten, and if diarrhœa supervenes avoid the kind of foods above mentioned.

At the very beginning of treatment the patient should be impressed with the great importance of certain hygienic and regimenal regulations. These should be fully discussed with him and he should be made to understand the reasonableness of the rules prescribed in order that his hearty and intelligent co-operation may be secured. The peculiarities of the patient must be fully weighed but the following points I consider with every patient.

Consumptives are usually persons who have formed strong attachments for their home, family and friends and do not readily adapt themselves to changed surroundings. For this reason home is the best place for the majority of these patients. This does not apply to the comparatively small contingent of phthisical patients who are always in touch with their surroundings and who are natural travellers. With these travel, change of scene and climatic treatment may be considered, but a change of residence should not be undertaken without thoughtful consideration and special advice from the medical attendant.

The residence should be exposed to sunshine and sheltered from cold and raw winds. The rooms should be well ventilated, free from draughts and comfortably warmed and furnished. The home should be entertaining, pleasant and cheerful. The patient should sleep alone.

Pleasurable exercise, such as riding, boating, walking, traveling, games, etc., and non-exhausting employment which interests and does not expose to deleterious influences are beneficial.

At frequent intervals the patient should practice forced breathing, both inspiration and expiration. As a measure of the ærial capacity of the lungs he should count aloud as many as possible without taking breath.

The clothing should be light and comfortable. That next the skin should be of wool and of fine texture. In cold weather the clothing should be sufficient to prevent chilliness, and the chest should have extra protection.

Once or twice weekly the patient should have a hot sponge or tub bath. The surface should be quickly rubbed to a glow and enveloped in warm woolen garments. The bath-room should be comfortably heated.

Should night-sweating supervene, bathe the surface with very hot water or vinegar and, after drying, rub with flour, starch or other absorbent powder.

Twice a day there should be applied to the surface of the chest a stimulating linament, composed of equal parts of turpentine and oil of hyoscyamus or oil of sassafras. Mustard plasters and hot applications may be made use of for the relief of local pains. These failing to give relief, small blisters may be employed.

The cough should be restrained as much as possible and endeavors made to expectorate with every effort. A dry, irritable cough, without expectoration, should be held in check by proper remedies.

The sputæ should be received in a cup containing a quantity of moist absorbent and antiseptic material. The contents should be removed once or twice daily and the cup cleansed. Moist antiseptic cloths may be substituted for the cup. The cloths and the contents of the cup should be burned.

Catarrhal colds should be avoided by every known means and if they occur they should be treated with the utmost care and the treatment continued until the disappearance of every trace. The patient should consult his physician at once upon the appearance of new symptoms, the significance of which may be unknown to him.

The patient should observe and record carefully his condition from day to day upon suitable blanks; such records afford information of the greatest value in formulating prognoses and lines of treatment. He should bring them along when he consults his physician. "With careful instruction an intelligent patient may become," to a limited extent, "his own observer and, to a certain extent, his own medical attendant" and to his advantage.

163 State St.

DOMESTIC CORRESPONDENCE.

Laboratory Work in Medical Schools.

One of the most interesting papers presented at Detroit was Dr. Vaughan's earnest plea for more laboratory work in our medical schools, read before the Association of Medical Colleges. The course of study is now lengthened to four years, and the term of nearly all medical schools is now more than six months. There is time for this work. The European medical education is superior to the American only by the facilities which it offers in laboratory instruction. It is for histology, pathology, bacteriology, clinical diagnosis and multiple dissections that our young medical men go to Germany.

The method of instruction at the bedside is recognized by educators as essential. This is only possible in large cities. The study of chemistry, pharmacology, histology, pathology and surgery in the laboratory could be as perfectly carried out in a village of ten thousand inhabitants as in a city of a million. Yet the laboratory method of teaching has not been undertaken in the majority of medical schools.

In speaking of proposed laboratory work, the writer was informed by an old college man that the time for laboratory instruction had not come, and that this was the age of clinical teaching. This is a position that can not be maintained. The universities are establishing courses preparatory to medicine and leading to the B. S. degree, in which laboratory work is a prominent feature. The men who have completed these courses are going into our medical schools and they are loud in their denunciation of the antiquated manner in which medicine is taught. They are forcing attention to the methods of instruction and proper sequence of studies and some of them are now able to demonstrate the more rational ways of teaching in their own class rooms.

It has been asserted that our average medical student can not and will not do laboratory work. This is an error, as the teaching of chemistry during the past ten years, at

least, has shown. If any further evidence is needed, the writer may be allowed to introduce his personal experience at the College of Physicians and Surgeons, of Chicago. Last year twelve hours a week of laboratory work was added to the two junior years. At first the students complained. A few rebelled. They were held firmly to their work and at the end of the year all dissatisfaction was gone and a new spirit, the scientific spirit, pervaded these classes.

The expense of laboratory teaching has been urged to bar it out of our schools. It is a fact that laboratory work is expensive. The proper housing of the laboratories cannot be much short, for the average class, of $500.00 each. Thus the laboratories for a school of one hundred students ought to cost not far from $50,000.00. This is in addition to lecture rooms and clinical facilities. The equipment would be a variable quantity and might be as low as $50.00 per each student or as high as $200.00. Allowing $600.00 as the capital invested, the interest alone on this amount, at six per cent. would raise the expense to each student $36.00. Add to this the material consumed and the expense for building, equipment and material cannot be short of $50.00 for each student each year. Admitting that the expense of laboratory teaching is great, it is no argument against its adoption. Students are willing to pay for what they get. Those schools that offered clinical facilities ten years ago secured the large classes and the large fees. Those schools that now offer laboratory instruction will secure an increased attendance.

The fact that most of the lectures are given in our medical schools without financial compensation or for a nominal salary makes it possible for many medical schools to hobble along without an income of any size. The adoption of laboratory instruction means the payment of salaries to laboratory instructors. There is a feeling among young medical men that it pays to give a surgical clinic before a class of students but that there is no return for eight or ten hours laboratory work each week before the same class. The writer believes that this is a mistake. It is a fact that laboratory work requires more time and study on the part of the teacher than any other form of teaching. There are very few men in medicine to-day who can properly conduct a laboratory exercise. But for the capable it will pay.

The loose manner in which the business of many of our medical schools has been conducted would be disastrous if they had large laboratories. Like the factory, the laboratory must have an accurate and centralized government, a simple and rapid system of book-keeping and the most conscientious scholastic supervision.

The results, in the productions of scientific medical men, by the introduction of proper methods of medical study, almost any experienced educator would be willing to predict. The quality of medical culture will be increased. The medical schools will attract a larger proportion of college bred men. The lecturers will cease to cram their students with the pap which has so long been doled out to them and the scientific spirit will permeate the post-mortem room and the clinical amphitheatre, and last of all the pages of our medical literature will cease to be disgraced by pages worthy the age of witchcraft.

To the Editor of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION:

To answer the many inquiries of the gentlemen who were present at the operations at Harper Hospital, during the late meeting of the Association, I wish to state that all cases of laparotomy recovered. In the first difficult case of Dr. Joseph Price, of Philadelphia, where he predicted that a fecal fistula might develop, this actually took place, but by keeping in the glass drainage tube for three days and then substituting the rubber tube and also by keeping the tract perfectly aseptic with hydrogen peroxide and covering the wound with bi-chloride gauze, the fistula gradually closed up, in the course of three weeks, and the patient is now about, walking, riding, etc.

The second case where a hole was made in the intestines, which had to be sewed, made a rapid and uneventful recovery.

The case operated upon by Dr. Ross, of Toronto, with the most firm and extensive adhesions recovered rapidly, and left the hospital just two weeks after the operation.

The case operated upon by Dr. H. W. Longyear, of this city, also recovered, union throughout by first intention.

My four cases also recovered without any bad symptoms. This includes the last very difficult case of vaginal hysterectomy. For cervical cancer, the woman being ten weeks pregnant, the clamps were removed in forty hours; with difficulty the woman was kept in bed until the eighth day, on the tenth day she walked about, and on the twelfth day when I arrived at the hospital I was told that the woman had gone home, one hundred and fifty miles from here, saying she was homesick and was now perfectly well. I received a letter yesterday from there stating that she was apparently perfectly healthy. Yours truly,

Detroit, July 16, 1892. DR. J. H. CARSTENS.

The New York Medical Journal and the American Medical Association.

A lengthy comment appears in the editorial columns of the *New York Medical Journal*, upon the affairs of the American Medical Association. To the reader, who has kept a close eye on the editorial columns of this journal, the present article is no surprise; from the fact that it is patent to the most casual observer, that there are a few members of our profession who regard the American Medical Association in the light of the old Romans, who were bound that Carthage should be destroyed.

What appears to give the editor a large scope for finding fault is the report of the committee on the Section on Dermatology which appeared in the JOURNAL of the Association I mention, and which the editor of the *New York Journal* comments on as follows:

"It does not seem that the committee struck the keynote of the trouble. Verily the medical profession has progressed since the organization of the American Medical Association, and features of that day and generation are not matters of overwhelming interest to-day. As long as the Association devotes as much of its time to the discussion of ethics, carrying it on in such a manner that the report reads: 'The excitement was so intense and the discussions so heated that we deem it prudent to omit them,' so long will the more prominent members of the American medical profession refrain from attending the meetings."

It is well that the reader takes particular note of the last two lines, from the fact that it is generally supposed that the American Medical Association contains a large proportion of the prominent members of the profession, excepting the editor of the *New York Medical Journal*.

The following paragraph brings prominently into view the professional patriotism of the editor of the *New York Journal*, which if it were true, nobody would find fault with.

"Contrast the program for the coming meeting of the British Medical Association with that of the recent meeting of our Association! And not only for this, but for many more years has the former been infinitely better. It works scientifically; ethical discussions are as alien to it as they are within a first class scientific organization of any sort."

Two years ago, the writer attended a meeting of the Brit-

ish Medical Association, and knows from personal observation that the above statement is not true in every particular. He was afterwards informed while in London, that it was a certain Birmingham doctor's "show" and that the animals were not all well trained.

Permit me to quote the last paragraph in the editorial, because it points out the animus of the whole article.

"Insistence upon discussions has resulted in the organization of the various special societies and of the triennial meeting of a general congress of all these societies. Some day the American Medical Association will realize that tomes on ethics will not be looked upon as its legitimate work; and we hope this awakening will not come too late to enable the Association to regain the ground it has lost."

It will be readily perceived that this article written by the editor of the *New York Medical Journal* was not presented to its professional readers in the interest of the American Medical Association, but on the other hand for the benefit of the special societies, which do not have a place within their organizations for the general practitioner; neither do these organizations have any sympathy with him, only when he supplies them material, as the jackal does the lion.

There is no organization from the Atlantic to the Pacific, from the river St. Lawrence to the Gulf of Mexico, but the American Medical Association, where the general practitioner can make himself at home, can discuss medical questions with, and receive information from the best medical talent in this broad land. The founder, Dr. N. S. Davis, of this great American Medical Association will live in the minds of the profession, when its would be destroyers have long since been forgotten.

J. F. JENKINS, M.D.

Tecumseh, Mich., July 15, 1892.

A Necessary Correction.

Southern Surgical and Gynecological Transactions, Vol. IV, page 163.—"Dr. George A. Baxter, Chattanooga, Tenn.:

I declare myself positively in favor of early operation in these cases, but I want to relate a case such as will be, and is used against it. A gun specially loaded for the object was discharged at a distance of less than twenty feet, and one negro had shot another in the back, seventeen balls by actual count entering the right kidney. One of them was detected underneath the skin, further around to the right side; and one, evidently striking some portion of the spinal column, was detected in the clothes. Fifteen balls, however, could not be found by those gentlemen first having the case in charge. The man came under my care six days after the injury, with no indication of peritonitis; but he had at that time an enormously enlarged liver and stomach. He had had hæmoptysis more or less since his injury, and the symptom that brought me into the case was hiccough, which lasted six days. Now, gentlemen, I did not probe for these balls. I did not operate, since what mischief was to accrue had done so already, and an operation could accomplish nothing at that late date. The negro had, however, I am persuaded, perforation of stomach, liver, and diaphragm. That negro got well, and is a perfectly well man to-day after two months' sickness. At no time had he a temperature above 100½°. He had had constant vomiting of bile for nearly three weeks, and he had a little discharge of blood occasionally for a month from his stomach. The hiccough gradually subsided only after six days. These are the kind of cases that will be urged against operative interference, etc."

Above is quoted a case reported by me in the last meeting of the Southern Surgical and Gynecological Society, in the course of debate, which from slight error in the report overlooked by me in the proofs, perverts my meaning so grossly as to make the case ridiculous, as well as rob it, by seeming exaggeration, of the scientific interest. I therefore call attention to it in THE JOURNAL previous to a contemplated correction before the Society, which does not meet until next November, for the satisfaction of several excellent surgeons who desire the real case, remarkable enough in its entirety, without the semblance of exaggeration. The sentence, "A gun specially loaded for the object, was discharged at a distance of less than twenty feet, and one negro had shot another in the back, seventeen balls by actual count entering the right kidney," should read *"the region of the right kidney."* That this was so intended is evidenced by the next sentence which says, "One of them was detected underneath the skin further around to the right side," and "one striking the spinal column, was detected in the clothes," which could not possibly have been the case if they all (17) had entered the kidney.

Having explained myself on this point, I am prepared to go further now and explain more fully than this report gives, a case which seems to have attracted a good deal of attention, the facts I desire to add making more plain my *probable*, not positive, diagnosis of liver, stomach, and diaphragm injury or perforation.

The negro had for the space of about three weeks, frequent daily vomiting of bile, this mixed occasionally with slight quantity of blood for first few days, as reported by him. He had an enormously distended liver, resulting in an abscess which pointed high up in front, which abscess was opened by me in the presence of Dr. H. Berlin, of this city, and from which was discharged pus and bile. No ball, however, was found. Is not this sufficient data for the *probable* diagnosis of perforation of liver by one or more of the lost fifteen balls? He had distinctly diagnosed, not by me alone, but by others who saw the case, also a greatly enlarged stomach, with almost constant vomiting, generally of bilious matter, but by his own report, mixed with blood for a few days. This last I did not see as he came under my charge on the sixth day—but in addition thereto, blood by rectum, which I did see and which was also seen by Dr. Berlin. Upon this data am I not right in diagnosing a *probable* perforation of the stomach by the same or another of the lost fifteen balls?

Now for the *probable* perforation of the diaphragm. I have stated that the symptom that called me into the case was hiccough, which lasted six days, gradually subsiding. It is true that here there are other reasons and forces to account for this symptom besides injury or perforation, but considering its persistent character, the fact that the direction of the balls were known, both by the one which still remained under the skin higher up and to the right side, and the stomach and liver symptoms, both of which pointed strongly to perforation, and the further fact, which has not been before stated, except in a report to our local society, that the negro was running in a more or less stooped condition, making positive the direction of the balls inward and upward; and the almost certainty, as it seemed to me that two of the balls had entered the abdominal cavity, to injure the liver and stomach, made the probable diagnosis of injury or perforation of the diaphragm the most probable and easiest explanation of the hiccough. This was all that was claimed, all that could be claimed short of the dissecting table.

The low temperature throughout this case is a positive observation. What it was before the sixth day I am unable to say or find out, for the gentleman who had charge of the case until that time kept no record, but after the sixth day it never exceeded 100½°, notwithstanding a probable perforation of the liver with formation of abscess of the stomach, with bloody vomit and bloody discharges, and notwithstanding a hiccough that lasted six days. The tests were made with a well proven Hicks' thermometer. This man was seen during his illness by Drs. Boyd, Ellis, Holtzclaw, Berlin, Rathwell and Cobleigh, and was afterwards presented to the local society with his full history, for examination, and the same probable diagnosis given, and any one of them are sufficiently familiar with the case to certify to the correctness of the statement given. This explanation is given in full for the benefit of several worthy gentlemen who have seemed particularly interested in the case, and I believe all points are elucidated upon which inquiry has been made. I would not have obtruded it again upon the public otherwise.

G. A. BAXTER, M.D.

Chattanooga, Tenn., July 7, 1892.

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SATURDAY, JULY 23, 1892.

BY-LAW IV OF THE AMERICAN MEDICAL ASSOCIATION.

The Publication of Papers and Reports.

No report or other paper shall be entitled to publication in the volume for the year in which it shall be presented to the Association, unless it be placed in the hands of the Board of Trustees on or before the first day of July. It must also be so prepared as to require no material alteration or addition at the hands of its author.

Authors of papers are required to return their proofs within two weeks after their reception; otherwise they will be passed over and omitted from the volume.

Every paper received by this Association and ordered to be published, and all plates or other means of illustration, shall be considered the exclusive property of the Association, and shall be published and sold for the exclusive benefit of the Association.

The Board of Trustees shall have full discretionary power to omit from the published *Transactions*, in part or in whole, any paper that may be referred to it by the Association, or either of the Sections, unless specially instructed to the contrary by vote of the Association.

A BILL FOR THE REGULATION OF EXPERT TESTIMONY.

At a recent session of the Minnesota State Medical Society, DR. B. J. MERRILL, of Stillwater, chairman of the Section on Medical Jurisprudence, directed his arrows at the prevailing abuses of the so-called medical expert. He submitted the subjoined bill for the consideration of the Society, and requested that formal action be taken looking to the correction of prevailing abuses by some form of conservative legislation.

A BILL TO PROVIDE FOR THE APPOINTMENT AND PAYMENT OF EXPERTS.

Be it enacted by the Legislature of the State of Minnesota:

SECTION 1. In all cases pending in the courts of this State, civil and criminal, before or at the time of the trial of said cases, the Judge of said court, when it is made to appear to him that the appointment of experts upon medical, scientific or mechanical questions is desirable, may appoint such experts to examine into the subject matter in controversy, said experts so appointed to be selected in reference to their impartiality between the contending parties; the number of such experts in each case to be fixed by the court.

SEC. 2. In all cases where experts are so appointed, the court is to fix their compensation, and in all criminal cases direct the payment of the same in the same manner as witnesses on the part of the State are paid; in all civil cases the amount so fixed and determined by the court shall be taxed as disbursements by the successful party.

SEC. 3. The court may order such experts to examine into any medical, scientific or mechanical question, and after such examination to testify in court in reference thereto.

SEC. 4. The testimony of said experts so appointed by the court, shall be *prima facie* evidence of the statements and conclusions as to the questions in reference to which said testimony has been given.

SEC. 5. The court may also fix and determine the amount to be allowed such experts for and on account of any medical, scientific or mechanical examination, analysis or test, which the court may deem advisable to have made, and direct the payment thereof, or permit the taxation thereof, as costs as hereinbefore provided.

An eminent jurist, in writing upon the question of evidence, divided unreliable witnesses into three classes, to wit: liars, blank liars and medical experts. Upon reflection we frankly confess our inability to successfully controvert the conclusions of the writer. While under ordinary circumstances we would vigorously object to being in any manner associated with liars, we are unable to disassociate the average expert from the unreliable witness. Until present customs cease both upon the part of the lawyer and the doctor, the allegation of JUDGE STORY must stand unrefuted.

We freely admit that abuses exist and that reform is imperative.

The existing conditions, however, are quite as much the product of the lawyers' shortcomings as those of the doctors or medical expert. It matters not how sincere the expert may be, the attorney is not disposed to permit full and unbiased expression from the lips of the expert. He will only elucidate such data as have a favorable bearing upon his side of the case. The expert is engaged by the attorney and paid by his client. This is wrong. He should be engaged and paid by the Court, and be wholly at liberty to freely express his views. In the direct examination upon either side the questions are skilfully drafted and most misleading when scientifically applied. Fragmentary sentences from standard authors are frequently read to the witness that may have a germane bearing, and the expert compelled to answer the question by yes or no. We are not permitted to explain our position *in extenso*. Along comes the expert for the defense with a different solution of the same question and the usual result happens. The jury fails to consider the expert evidence at all, and not infrequently make their

own interpretations upon questions they know little or nothing of.

In view of existing practices we believe the representatives of the profession of law have been somewhat captious in their very free criticisms of medical experts. It was certainly very proper and politic in the Minnesota Society to remand the consideration of this bill to a committee of five, the majority of whom were lawyers. The proposed bill will in our opinion bear close scrutiny. It is the best draft of a bill upon this question we have examined. This is preëminently an era of medical legislation, and the occasion opportune for work in this direction. The profession will render all the assistance possible, as they will not look upon the commercial side of a question of this character. Coming as it does from Minnesota, it carries with it prestige. The profession of this State possesses the faculty of crystallizing public and professional opinion and bringing about their reforms in a most efficient manner. The bill has not the provision for the appointment of the permanent board of experts that is customary in Europe, but provides for the selection of men by the Judge as occasions may arise. It is not reasonable to fear a monopoly, as the Judges will in all probability select men representatives of the specialties in metropolitan communities, and in communities remote from centers of population they will of necessity select the competent, all around general practitioner. If this bill were to become a law, the court procedure would be quite different from that prevailing in monarchial forms of government. The expert could not shield himself behind his written opinion. Our Constitution, in criminal cases at least, provides that the accused criminal may, either in person or by attorney, directly cross-examine all witnesses. The bill would make the expert accountable to the Judge only, who is the true representative of justice. It will, we believe, subserve the best interests of the public and promote justice.

In civil cases the amount of litigation would be greatly lessened. The number of "railway spines" would lessen by at least 99 per cent. The pathology of spinal injuries would be less ambiguous and contradictory, and more in keeping with common sense. The rights of corporations would be less frequently outraged, and the profession greatly elevated in the estimation of a critical public. The profession will await the action of the committee with interest, and trust they may prove themselves equal to the exigencies of the occasion, and that their motto may be *pro bono publico*.

THE one hundred and twenty-sixth annual meeting of the Medical Society of New Jersey took place at the United States Hotel, Atlantic City, N. J., on Tuesday and Wednesday, June 28 and 29, 1892.

CHOLERA.

The wonderfully increased facilities for rapid transit, and inter-communication between nations makes the presence and spread of cholera in foreign countries at this time, a very serious menace to the people of our own land.

For a number of years we have solaced ourselves with the comfortable belief that modern sanitary science has effectually barricaded cholera from Europe and America. The present condition of famine in Russia, with its consequent train of pestilence, makes the entire population of vast regions easily susceptible to this additional scourge, while the increased immigration from that country to our own affords the health authorities of our States and cities a good and sufficient cause for increased vigilance, and the adoption of necessary quarantine measures.

The many water-ways that furnish scores of towns and cities with their sole supply of water should, so far as possible, be freed from contamination and pollution.

The increase of enteric disease in many localities at this time, is a sufficient reason for investigation as to its cause and consequent removal.

The near approach of the time when hundreds and thousands of people from all parts of the habitable world will visit this country and focus to this city, should force upon the municipal authorities of Chicago, a realization of their responsibility in this direction, and compel a much more vigorous effort than is apparently being put forth, to not only sweep, garnish and put in order every sewer, street and alley but to give the city an overplus of unpolluted water for every household purpose.

In case the germs of cholera should reach this city, the conditions for a spread of the disease to the direst epidemic proportions are singularly favorable.

That it should be necessary, month after month, to boil and filter every pint of water that is used for drinking purposes in a city of more than a million of inhabitants, is a scandal of monumental proportions upon the city government.

This condition of affairs is not only well known at home, but is now thoroughly noised abroad, to the very great detriment of World's Fair interests.

The men of conceptive minds, of enterprise and ability are here and could speedily change most of the disparaging conditions to which we have directed attention. A diversion of thought from a contemplation of unparalleled enterprises, to the more homely one, of preparing to give a cup of pure water to every stranger that visits the city, will soon do the work. We are patiently waiting for a manifestation of the workings of the minds of some men in this direction, and will be glad of an opportunity to tell the world through our pages that the conditions to foster

an epidemic of cholera or any other enteric disease do not exist in the World's Fair City.

EMULSIFIED VACCINE LYMPH.

An interesting review of the present status of vaccination has appeared in the *Medical News*, May 14, by the pen of DR. JOHN V. SHOEMAKER. No country has, in recent years, given a more scrupulous attention to the production of lymph than Prussia. DR. SHOEMAKER has been supplied by the Berlin Institute for Animal Vaccination, which is in the charge of DR. PISSIN, State Councillor of Health. This institute was established in 1865, and DR. PISSEN has been a contributor to the literature of small-pox prevention since 1868. The lymph-products of DR. PISSEN have become so favorably known in the country of their origin, that they are exclusively employed as the material for vaccination and re-vaccination in the German army. The lymph is obtained solely by calf-to-calf vaccination. The animals are subjected to rigid examination, and every discoverable source of impurity and contamination is carefully eliminated.

"This lymph is put up in two forms. First, the *pure lymph*, which is a product of constant and unvarying activity, obtained directly from the calf. It should be used in a comparatively fresh condition, that is to say, within from four to six weeks after the date of preparation. This is a beautifully limpid fluid, almost as colorless as water, and is enclosed in hermetically sealed glass tubes. The *emulsified lymph* is prepared from the pure material by a special process. This preparation is a little thicker than the pure lymph, and is slightly turbid. It is equally effective, is far more stable, and retains its power for an indefinite period if the tubes are kept in a cool place. For many years, it is claimed, the results with DR. PISSIN'S lymph have been 100 per cent. of successes in primary vaccinations, and from 80 to 90 per cent. in re-vaccinations. The materials are put up in tubes of different sizes, containing a sufficient quantity for five, ten, or twenty-five vaccinations."

Both forms of the lymph have been used by DR. SHOEMAKER. He says that his success has been uniformly good and he can report that "the claims made for it are borne out by my own experience. In every case the vaccine lesion was perfectly typical and unattended by any unusual local or constitutional phenomena. These tests exemplify not only the efficiency of the preparation, which is, of course, the chief point to be considered, but also incidentally the preservative influence of the sealed tubes—for the fine lymph, which is the least stable, did not reach me until eight weeks after it had been received by the English agent, and it must have been at least a few days old when it first came into his possession. As regards fixity, therefore, it must be regarded as the equal if not the superior of lymph dried upon points. The emulsion that I employed was a fresher sample, being about two weeks old. Both varieties were entirely efficient."

The lymph should be applied as follows: "The skin is cleansed with soap and water at the spot selected for the operation, and wiped quite dry. The extremities of the tube are then broken off, and a sufficient quantity of the lymph blown upon the skin, preferably upon four separate places. Then with a blunt lancet, or darning-needle, previously disinfected by passing through the flame of a spirit-lamp, the lymph is scratched in, care being taken not to abrade the epidermis, any effusion of blood being undesirable. The part should be allowed to dry before the clothing is readjusted, and should not be washed again for a week." Certain of DR. SHOEMAKER'S friends, to whom he gave a share of his lymph, have informed him of successes equal to his own. A single point of criticism is raised in respect of the mode of application, but not of the article itself. It is possible that a waste of the fluid may occur in the act of blowing it from the tube; and there may be some want of success in completely resealing the tubes, when their contents have not all been utilized.

EDITORIAL NOTES.

A CLASSICAL QUOTATION WANTED.—The much abused quotation "who shall decide when the doctors disagree" is floating around again. It circulates far too freely and widely, when we consider that it has fundamentally no relation to the medical profession whatever. The original Latin saying, when first coined and used, we all know, when we reflect upon the subject for a moment, dates from a time when medical men were never called "doctors," and when the only "doctors" were the teachers of the Holy Mother Church, the only doctors then were the gentlemen of the cloth, the clergy. And they were all the time at odds with one another —so we are taught to believe—to such an extent that this adage came into being and has held its place a thousand years, more or less. Only by a strange *contretemps* it has been shifted off from the clergy, and medicine has most unjustly been saddled with it. The old Latin saying had in it a reference to the *disipulus*, meaning the theological student, and affected to pity the distraction of his mind, while the holy teachers were engaged in criticising one another. The disputes of the theologians, in those early days, were marked by an earnestness and rancor that far exceeded anything that can be seen in the medical fraternity—even if it be a question of ethics that is up for decision. For these reasons, we propose to ask any classicist who may read our protestations and who knows the proper Latin text and source of this adage to send them to us and thus help in putting the mischievous quotation where it belongs, with the clergymen. Every time that it seems to be necessary we will quote the original in its original setting. Let us all spurn the "misfit" adage.

THE LOUISIANA MEDICAL SOCIETY SESSION OF 1892.—The June number of the *New Orleans Medical Journal* gives an account of the four days meeting at New Orleans, in April last, this being the thirteenth annual session. The time of the second day was largely devoted to the perfection of a new bill to regulate practice, and to provide for a State

Board of Examiners, which will probably be passed by the next legislature. Important and influential committees were appointed in order to aid, in every legitimate method, the prompt adoption of the important measure. The well-known names of Drs. Miles, Logan, Chaillé, Bemiss, Bickham, Matas, Parkham, and McShane are only a small portion of those engaged in the warfare against irregular medicine. Dr. J. B. Elliot, was made president of the Society a second time, despite his personal protestations against two terms. This was done to retain his services in behalf of the proposed act during the renewal of the campaign before the State legislature. The president is given authority to name the delegates to the American Medical Association. There is room for doubt whether this is, or is not, the best method for choosing representatives. We hold that, unless there are urgent reasons to the contrary, a portion if not the entirety of the délegation would better be elected by any given association before adjournment. The President should, of course, be authorized to fill vacancies. We have known the former course to give rise to undesirable allegations.

The members of this State Society are enlisted in strengthening the membership and basis of representation. It is a most worthy undertaking, and we are pleased to mention that one of the members, Dr. W. G. Owens, was given an especial vote of thanks for his success in causing a large number of new members to unite with the body.

Dr. Lemonnier addressed the Society respecting the duty of the members as to ignorant midwifery. There are more deaths of women and children, he believed, brought about by the midwives than by the murderers. He had succeeded in bringing two of these women before the courts, but they had been discharged because there are no laws for the limitation of that branch of practice. He was requested to frame a bill on that subject. The next meeting of the Society will be held in May, 1893, and at New Orleans.

The editorial columns contain an elaborate estimate of the career and character of the late Dr. T. G. Richardson, one of the ex-presidents of the American Medical Association, and they are adorned by a speaking photogravure likeness of the long-time professor of surgery at Tulane University.

TONIC LOTION FOR THE SKIN.—It is claimed for the following compound that it tones the cutaneous circulation and prevents wrinkles: Two ounces of spirits ammonia, the same of tincture of camphor, five ounces of coarse salt, one quart of boiling water. After these are well agitated and cold add six ounces of alcohol. To be shaken before using. This is called a "skin tonic" and is both refreshing and rejuvenating.

VASELINE AN UNDESIRABLE LUBRICATOR.—In *Memorabilien*, Novotmy has given a warning against the use of this substance to lubricate sounds and other vesical instruments. He has twice found this insoluble material serving as a nidus about which a mass of detritus had accumulated or acting as the rallying point of urinary sediment. A very little of the lubricant, left behind each time that a sound is passed, would in time, in some cases, attain to the proportions of a foreign body of appreciable mass. In one of Novotny's cases the quantity of mixed sediment and lubricant amounted to 150 grains in weight.

CHIAN TURPENTINE IN CANCER: NINE YEARS' EXPERIENCE.—Prof. John Clay, of Birmingham, has given in the *Medical Press* his latest views regarding the use of Chian turpentine in cancer. In his article he publishes the leading characteristics of five cases of differing types which serve to show, as he believes, that his remedy is "a palliative agent of no mean value." These five cases appear to have been of a severe grade and their subsequent condition warranted such reports "no recurrence," "excellent health," "well in every respect" and "very active."

He repeats his former plea to put the patient on the use of the Chian drug before the disease has become advanced and has begun to impress itself on the system at large, or to engage vital parts in the vicinity of the organ at first involved.

But even in such advanced cases, he asserts, the drug is competent to allay pain and diminish blood-loss. He has some uterine cases, treated as long ago as nine years, that are even now living and in a satisfactory state of health.

A Chian turpentine patient, he says, when cured seems to have all the latent germs eradicated; the tendency to recur is not apparent. He believes in using the drug as a preparative to operation. If the knife must be used, he would have the patient take the drug for a period of three weeks or longer. And after the operation is performed he would continue the medication for a twelvemonth. He has seen this plan followed in a number of cases during the last six years, and no return of the disease in these cases has been known to him.

His best results from the Chian drug have been obtained in growths affecting the tongue, face and head. If used early, even when the glands of the neck have become enlarged, "a cure may result." When glandular enlargement has arisen, it is his habit to give the drug in small doses, lest sloughs in the vicinity of the great vessels of the neck may be induced by too active medication. Regarding uterine cancer his experience leads him to say that complications, such as extension of the disease to adjoining structures, arise very seldom when the turpentine is employed, whereas they are almost the rule in other cases.

The purity of the drug is of prime importance, according to the author; and imposition is frequently practiced to the detriment of the sick. The preparations made for Dr. Clay, by the Southalls of Birmingham, have the advantages of purity and careful compounding to suit the different classes of cases. Dr. Clay believes, for instance, that the pills are more efficient than mixtures; but in cases of cancer of the stomach and rectum the pills should not be given.

It will often be necessary to inculcate patience on the part of those taking the medicine, and very speedy results should not be promised. Two or three weeks, perhaps longer, may elapse before any changes in the growth are discernible.

TREATMENT OF FRACTURE OF CLAVICLE.—With the exception of the femur, there is no bone fracture with which the surgeon meets where a shortening so uniformly results as in the clavicle. The testimony of surgeons from Hippocrates to the present time in that however careful the treatment of this fracture, deformity almost always results. The difficulty does not lie in the reduction of the fracture, for as a rule this is very easily accomplished; the trouble we meet is in retaining the reduction sufficiently long for nature to establish an osseous union, even after the parts are properly adjusted the slightest movement of the head, arm, or even the movements occasioned by respiration are frequently sufficient to displace the fragments again to the position they occupied before their reduction.

I would like to call the attention of the profession to a treatment that has proved successful, that is the use of the bone dowel or peg. After reducing the fracture in the usual manner pierce the clavicle with an awl, let it extend from one broken fragment to the other, then insert the antiseptic bone peg completely. The arm and elbow is now suspended in a sling and the arm is confined to the chest either by a few turns of the bandage or a few broad strips of adhesive plaster.

By this method you will not meet with the difficulties met with in the wire suture advocated by Von Langenbeck and the results will be more perfect.

A. S. KINNAMAN, M.D.

1920 Euclid Avenue, Cleveland.

BOOK REVIEWS.

THE MEDICAL REGISTER OF NEW YORK, NEW JERSEY, AND CONNECTICUT. 1892-3. Published for the New York Medico-Historical Society. DR. WILLIAM T. WHITE, editor.

This is the well-known "Green book," as it is familiarly called in New York; so called from the color of its cloth binding, which has been retained for about thirty years. It contains over three hundred closely printed pages, giving information primarily about medical men and institutions. It also touches lightly on other sub-heads of organized work that is contributory to medicine, such as nursing, pharmacy, publishers, etc. The New York City lists contain 2,435 names, an increase of one hundred names in the year. The editor states that in addition to these, who are accounted "regular," there are 870 who sail under one name or another, and nearly one hundred are known as advertisers. The New York State list has 8,394 names, an increase of about 250, as compared with last year.

The editor earnestly calls the attention of the profession to the growing numbers of people who resort to the public charities. The reports of the dispensaries, for example, show that 442,000 cases were treated at those places, a fact which means either that there is a large increase of pauper sickness or that hosts of persons are treated without charge, who would otherwise employ a physician. There were 6,500 cases treated in the various hospitals.

REGIONAL ANATOMY IN ITS RELATION TO MEDICINE AND SURGERY. By GEORGE MCCLELLAN, M.D. Vol. ii, 4to, pp. 414. Philadelphia: J. P. Lippincott & Co. 1892.

In our notice of the first volume of this recent addition to our already long list of works on anatomy, we expressed our high appreciation of this work, and now that the concluding volume has made its appearance, we can only reaffirm what we then said of the highly conscientious style of the author, the excellence of the illustrations, and the typographical merit of the book as a whole.

It is scarcely too much to say that the present high standing of medicine and surgery as a science is due chiefly to more correct anatomical knowledge, and when we examine the records of the past we find that in every period of the world's history where the study of anatomy languished, medicine and surgery showed little advance and often actual decay, and we sometimes fear that our progressive and pushing age is neglecting anatomy, that foundation of all solid progress, for transcendental medical and surgical therapeutics. It was the teaching of anatomy that made the ancient Greek medical writings and the Alexandrian school immortal, and the impetus given to medical science in the sixteenth century was solely due to the discoveries made in human and comparative anatomy.

But regional anatomy, such as Dr. McClellan sets forth, is the connecting link between the theoretical and practical. It describes the members as they are found, in association. Regional anatomy is thus of much higher value to the practitioner, than the description of separate parts, indeed one must recall with a smile how Alerneon, the first descriptive anatomist, in mentioning what we now know as the Eustachian tube, was led into the belief that goats respired through their ears, and it was given to Aristotle to demonstrate that this tube had no particular connection with the respiratory function. The study of particular parts, therefore, unless supplemented by their collective study, may lead to serious error.

The volume now on our table, devotes eighty-one pages to the region of the abdomen, and the remainder of the four hundred pages in proper proportion to the inguinal region; the region of the pelvis, the region of the perineum; the region of the back; the lumbar region; the gluteal region; the region of the hip; the region of the thigh; the region of the popliteal space; the region of the leg and the region of the ankle and the foot.

The illustrations are excellent color reproductions from original color sketches from actual dissections by the author, and the letter press is large, handsomely printed on heavy paper, and the publishers may congratulate themselves that they have done their part in furnishing a welcome and creditable addition to American medical literature. J. B. H.

NECROLOGY.

PROF. THEODOR MEYNERT of Vienna, has died, and left a notable vacancy in the University faculty of that capital. He was an indefatigable worker in psychiatry, a branch of medicine, which before his day existed only as a name without meaning—"a chaos with no hope of order being restored." This was the expression of Nothnagel, while Zuckerkandl said that the medical world owes it to the dead professor that he opened up a new epoch, since it was Meynert who paved the way to a precise expression of symptoms for localization. His writings had been numerous and varied, but his anatomy of the brain should be sufficient to immortalize his name. Every department in the University suspended the regular routine long enough to pass a tribute, fuller or briefer, to the memory of Meynert, and when Nothnagel addressed his class, all the students arose and remained standing while the professor pronounced his eulogium upon the departed colleague.

AMERICAN PEDIATRIC ASSOCIATION.—Officers elected for the ensuing year: President, Dr. Blockader of Montreal; First Vice-President, Dr. Keating; Second Vice-President, Dr. Earle of Chicago; Secretary, Dr. Samuel Adams of Washington; Treasurer, Dr. Townsend of Boston; Recorder, Dr. Watson of New Jersey; New Member of Council, Dr. Rotch of Boston. New members elected were: Dr. J. P. Crozer Griffith of Philadelphia, and Dr. T. F. Sherman of Boston.

THE Maine Medical Association met in Portland on June 9. The following officers were elected: President, Dr. Alfred Mitchell of Brunswick; Secretary, Dr. William Cammett, of Portland.

OFFICERS OF TENNESSEE STATE MEDICAL SOCIETY.—During the session of this State Society, held in Knoxville, the following officers were elected for the ensuing term: Dr. C. W. Beaumont, of Clarksville, President; Drs. A. D. Sruggs, W. K. Sheddan, of Williamsport, and W. A. D. Coop, of Dyersburg, Vice Presidents respectively for East, Middle and West Tennessee; Dr. D. S. Nelson, of Chattanooga, Secretary, and Dr. Walker, Treasurer.

At the annual meeting of the Washington, D. C., Medical Association, the following officers were elected: N. S. Lincoln, President; C. H. A. Kleinschmidt, First Vice-President; H. L. E. Johnson, Second Vice-President. James Dudley was re-elected Secretary, and Samuel S. Adams, Treasurer.

MISCELLANY.

AMERICAN ORTHOPEDIC ASSOCIATION.—The sixth annual meeting of this Association will be held in Room 39, at the New York Academy of Medicine September 20, 21 and 22, 1892. The program is as follows:

The Association will be called to order daily at 9 A.M. There will be an afternoon session at 2 o'clock.

At noon on Tuesday and Thursday the Association will go into executive session for the transaction of business.

On Tuesday evening, at 8 o'clock, Dr. Lewis A. Sayre will receive the members and guests of the Association at his house, No. 285 Fifth Avenue.

At 8 o'clock on Wednesday evening the annual dinner will be held in the banquet-room of the Academy of Medicine. The charge will be five dollars per plate, and members are requested to notify the Treasurer at the earliest possible day of their intention to participate, and accompany the notification with a check for the number of plates desired, with names of guests.

First Day—Tuesday:

1. The President's Address, Dr. Benj. Lee, Philadelphia.
2. Report of a Case of Spontaneous Dislocation of the Hip Joint, Dr. B. E. McKenzie, Toronto.
3. Adduction following Fracture of the Neck of the Thigh Bone, Dr. H. Hodgen, St. Louis.
4. Osteitis Deformans, with a Report of Two Cases, Dr. Henry Ling Taylor, New York.
5. Lateral Dislocation at the Knee Joint due to Local Disease, or Paralysis, with especial reference to Treatment, Dr. T. Halsted Myers, New York.
6. Plaster of Paris Orthopedics, Dr. A. J. Steele, St. Louis.
7. The Orthopedic Treatment of Infantile Spinal Paralysis, Dr. John Ridlon, Chicago.
8. A Report of Two Years' Operative Work in the Hospital for the Ruptured and Crippled, Dr. V. P. Gibney, New York.
9. Lateral Curvature, Dr. E. H. Bradford, Boston.
10. The Classification of Hip Disease, Dr. R. W. Lovett, Boston.
11. A Study of some of the Problems in the Mechanical Treatment of Hip Joint Disease, Dr. Newton M. Shaffer, New York.
12. Experiments Demonstrating the Etiology of the various Deformities in Hip Joint Disease, Dr. A. M. Phelps, New York.
13. Some Remarks on the Etiology of Club-Foot, Dr. Samuel Ketch, New York.

Discussion to be opened by Dr. J. K. Young, of Philadelphia.

14. At what Age shall the first Treatment of Congenital Club-Foot be Instituted? Dr. H. Augustus Wilson, Philadelphia.

Discussion to be opened by Dr. C. C. Foster, of Cambridge.

Second Day—Wednesday:

The following papers will be discussed together:

15. The Non-Operative Treatment of Congenital Club-Foot, Dr. A. B. Judson, New York.
16. The Non-Operative Treatment of Club-Foot in Young Infants, Dr. R. W. Lovett, Boston.
17. Manual Replacement in the Treatment of Club-Foot, Dr. Ap Morgan Vance, Louisville.
18. The Treatment of Club-Foot by Continuous Leverage, Dr. Henry Ling Taylor, New York.
19. The Place of Traction in the Treatment of Club-Foot, Dr. Newton M. Shaffer, New York.
20. The Use of the Wrench in the Treatment of Club-Foot, Mr. Robert Jones, Liverpool.

Discussion to be opened by Dr. A. M. Phelps, of New York, and Dr. Roswell Park, of Buffalo.

The following papers will be discussed together:

21. The Operative Treatment of Club-Foot, Dr. DeForest Willard, Philadelphia.
22. Analysis of Bone Operations in Club-Foot, especially Enucleation of the Astragalus, Dr. V. P. Gibney, New York.
22. Treatment of Resistant Club-Foot, Dr. E. H. Bradford, Boston.

Discussion to be opened by Drs. L. A. Sayre and J. B. Bryant, of New York.

Third Day—Thursday:

24. An Easy Way to hold the Operated-on Club-Foot in the corrected Position while the Plaster of Paris Splint Sets, Dr. H. M. Sherman, San Francisco.
25. Means for the Prevention of Relapse in the Treatment of Club-Foot, Dr. B. E. McKenzie, Toronto.
26. Necessity for Mechanical Treatment after Operations for Club-Foot, Dr. W. R. Townsend, New York.
27. A Case of Club-Foot with Rare Complications, Dr. A. J. Steele, St. Louis.
28. Paper on Club-Foot; title not announced, Dr T. Halsted Myers, New York.
29. Paper on Pott's Disease; title not announced, Dr. R. H. Sayre, New York.
30. Paper; title not announced, Dr. H. L. Burrell, Boston.
31. Paper; title not announced, Dr. J. C. Schapps, Brooklyn.

President—Benjamin Lee, M.D.

Vice-Presidents—R. H. Sayre, M.D.; H. L. Taylor, M.D.

Corresponding Secretary—Royal Whitman, M.D.

Secretary and Treasurer—John Ridlon, M.D., 34 Washington St., Chicago.

Committee on Membership—E. H. Bradford, M.D.; A. J. Gillette, M.D.; Samuel Ketch, M.D.; DeForest Willard, M.D.; L. E. Weigel, M.D.

VERMONT STATE MEDICAL SOCIETY.—Preliminary program of the seventy-ninth annual meeting of the Vermont State Medical Society, held in Montpelier, Oct. 13 and 14.

Papers (partial list).

1. The President's Annual Address, C. S. Caverly, Rutland.
2. Placenta Prævia, D. G. Kemp, Montpelier. Discussion opened by C. C. Perry, West Rutland.
3. An Analysis of Dosimetry, C. W. Strobell, Rutland. Discussion opened by W. H. Vincent, Orwell.
4. Cholera Infantum, A. E. Moody, Isle La Motte. Discussion opened by Geo. Davenport, E. Randolph.
5. Uric Acid and Urea, Analysis and Significance of, Geo. B. Nichols, Barre. Discussion opened by C. W. Peck, Brandon.
6. The Influenza as observed by me in the epidemic of 1891-92, S. T. Brooks, St. Johnsbury. Discussion opened by M. R. Crain, Rutland.
7. Treatment of Minor Injuries to Workmen, C. B. Ross, W. Rutland. Discussion opened by C. E. Chandler, Montpelier.
8. Some of the Medical Delusions of the past and present, Edw. R. Campbell, Bellows Falls. Discussion opened by H. A. Crandall, Burlington.
9. Injuries to the Intestinal Canal, and their various modes of treatment, E. M. Pond, Rutland. Discussion opened by J. N. Jenne, St. Albans.
10. McBurney's operation for radical cure of Hernia, with presentation of a case, Wm. F. Hazelton, Springfield. Discussion opened by H. Janes, Waterbury.
11. Neurasthenia, A. J. Willard, Burlington. Discussion opened by H. R. Wilder, Swanton.
12. Diphtheria—Cause, Prevention and Treatment, F. R. Stoddard, Shelburne. Discussion opened by C. F. Branch, Newport.
13. The Insane Diathesis, J. M. Clarke, Burlington. Discussion opened by D. D. Grout, Waterbury.
14. The use of the Curette in Uterine Surgery, Albert Vander Veer, Albany, N. Y. Discussion opened by L. M. Bingham, Burlington.
15. Paper (Title to be announced) B. J. Andrews, Burlington.
16. Obituary of S. S. Clark, M.D., Geo. Dunsmore, St. Albans.
17. Obituary of Joseph Draper, M.D., H. D. Holton, Brattleboro.

OFFICIAL LIST OF CHANGES in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from July 8, 1892, to July 15, 1892.

Col. Charles Page, Asst. Surgeon-General U. S. A., is granted leave of absence for one month, with permission to apply for an extension of one month.

Major J. V. D. Middleton, Surgeon U. S. A., will take charge of the office, and perform the duties of the Medical Director, Dept. of the East, in addition to his other duties, during the absence on leave of Col. Page, Medical Director.

Major John O. Skinner, Surgeon U. S. A., granted leave of absence for four months on account of sickness, with permission to leave the Dept. of Texas.

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